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 MARCH 2003

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Open-File Report 03-261

# Results of the U.S. Geological Survey's Analytical Evaluation Program for Standard Reference Samples Distributed in March 2003

By Mark T. Woodworth and Brooke F. Connor

U.S. GEOLOGICAL SURVEY

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2003

**U.S. DEPARTMENT OF THE INTERIOR**

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**U.S. GEOLOGICAL SURVEY**

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Denver, Colorado 80225-0046

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U.S. Geological Survey
Branch of Information Services
DFC, Bldg. 810, Box 25286
Denver, Colorado 80225-0286
888-ASK-USGS

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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 |
| $HNO_3$ = | nitric acid |
| Lh = | lower hinge value |
| L = | liter |
| Lab = | laboratory |
| mg/L = | milligrams per liter |
| mL = | millilter |
| M - = | major ion sample |
| MPV = | most probable value (center line on graphs) |
| n = | number of analyses |
| N = | Normality |
| N - = | nutrient sample |
| NR = | not rated, less than values reported or insufficient data |
| OLR = | overall laboratory rating for each sample type |
| OWR = | overall weighted rating for all sample types |
| P - = | precipitation sample (low ionic-strength, 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

$$OWR = \frac{(OLR*V_1)+(OLR*V_2)\ldots(OLR*Vn)}{(V_1 + V_2 + \ldots\ldots Vn)}$$ 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 MARCH 2003

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## ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for six standard reference samples -- T-173 (trace constituents), M-166 (major constituents), N-77 (nutrient constituents), N-78 (nutrient constituents), P-40 (low ionic-strength constituents), and Hg-36 (mercury) -- that were distributed in March 2003 to laboratories enrolled in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data received from 110 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.

Over 275 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 with a laboratory identification number while all other laboratories are kept confidential.

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 110 laboratories for the March 2003 evaluation (table 1 and table 2). Analytical results for the following are presented in this report:

| | | | |
|---|---|---|---|
| T-173 | Trace constituents | N-78 | Nutrient constituents |
| M-166 | Major constituents | P-40 | Low ionic-strength constituents |
| N-77 | Nutrient constituents | Hg-36 | 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 March 2003***

| Lab | Participating Laboratory | City | State |
|---|---|---|---|
| 1 | U.S. Geological Survey - National Water Quality Laboratory | Denver | CO |
| 4 | U.S. Geological Survey - Utah District Laboratory | Salt Lake City | UT |
| 5 | U.S. Bureau of Reclamation | Denver | CO |
| 10 | U.S. Bureau of Reclamation | Boise | ID |
| 16 | Oklahoma Department of Environmental Quality | Oklahoma City | OK |
| 18 | Illinois Environmental Protection Agency | Champaign | IL |
| 21 | UC Davis - Department of Environmental Science & Policy | Davis | CA |
| 23 | City of Fort Collins - Water Quality Laboratory | Ft. Collins | CO |
| 25 | Kentucky Geological Survey | Lexington | KY |
| 31 | High Sierra Water Laboratory | Truckee | CA |
| 33 | U.S. Geological Survey - Panola Mountain Watershed Project | 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 | Trenton | NJ |
| 89 | Monroe County Environmental Health Laboratory | Rochester | NY |
| 91 | Georgia Department of Natural Resources | Atlanta | GA |
| 102 | Heidelberg College - Water Quality laboratory | Tiffin | OH |
| 105 | Pennsylvania Department of Environmental Protection | Harrisburg | PA |
| 110 | U.S. Geological Survey - New York District Laboratory | Troy | NY |
| 121 | University of Hawaii - Department of Oceanography | Honolulu | HI |
| 134 | Ocala Water Quality and Research Laboratory | Ocala | FL |
| 142 | North Dakota Department of Health | Bismarck | ND |
| 147 | U.S. Geological Survey - Surface Water Quality Research | Boulder | CO |
| 180 | Clean Water Services | Hillsboro | OR |
| 193 | Vermont Department of Environmental Conservation Laboratory | Waterbury | VT |
| 205 | Olsen's Agriculture Laboratory | McCook | NE |
| 208 | U.S. Geological Survey - Water Resources Division | San Diego | CA |
| 212 | Severn Trent Laboratories | Arvada | CO |
| 219 | U.S. Geological Survey - Minerals Program Laboratory | Denver | CO |
| 220 | U.S. Bureau of Reclamation | Bismarck | ND |
| 224 | University of Arkansas - Water Quality Laboratory | Fayetteville | AR |
| 234 | City of Wichita Laboratory | Wichita | KS |
| 245 | Frontier Geosciences Inc. | Seattle | WA |
| 254 | U.S. Geological Survey, WRD, NRP | Menlo Park | CA |
| 323 | Oregon Department of Environmental Quality | Portland | OR |
| 327 | North Carolina Department of Environment and Natural Resources | Raleigh | NC |
| 330 | Kennecott Environmental Laboratory | Magna | UT |
| 333 | U.S. Geological Survey - Colorado District WEBB Laboratory | Denver | CO |
| 341 | Michigan Department of Environmental Quality | Lansing | MI |
| 356 | Washington State Department of Ecology - Manchester Environmental Laboratory | Port Orchard | WA |
| 366 | TriMatrix Laboratory | Grand Rapids | MI |
| 369 | New Hampshire Department of Environmental Services | Concord | NH |
| 373 | City of Tulsa - Quality Assurance Laboratory | Tulsa | OK |
| 374 | U.S. Geological Survey - Miami Subdistrict Laboratory | Miami | FL |
| 377 | Environmental Task Force laboratory | Stevens Point | WI |
| 378 | Minnesota Department of Health | Minneapolis | MN |
| 379 | Mississippi Department of Environmental Quality Laboratory | Pearl | MS |
| 380 | New Mexico Health Department | Albuquerque | NM |
| 381 | North Atlantic Coastal Laboratory | Wellfleet | MA |
| 383 | University of Vermont - Agricultural & Environmental Testing Laboratory | Burlington | VT |
| 386 | Johnson County Environmental Laboratory | Mission | KS |
| 388 | Texas Commission on Environmental Quality | Houston | TX |
| 390 | University of Southern Mississippi - Department of Marine Science | Stennis Space Center | MS |

**Table 2.** ***Other laboratory participants in the analyses of standard reference samples distributed in March 2003***

| Participating Laboratory | City | State |
|---|---|---|
| Albion Environmental | College Station | TX |
| Aqua Tech Environmental Laboratory (ATEL) | Marion | OH |
| California Department of Water Resources | West Sacramento | CA |
| City of Northglenn - Water Treatment Facility | Northglenn | CO |
| City of Albuquerque - Water Quality Laboratory | Albuquerque | NM |
| City of Pueblo - Wastewater Treatment Plant | Pueblo | CO |
| City of Tallahassee - Water Quality Division | Tallahassee | FL |
| City of Westminster - Semper Water Quality Laboratory | Westminster | CO |
| Columbia Analytical Services | Rochester | NY |
| Cook Inlet Community-Based Water Quality Laboratory | Homer | AK |
| Darrin Freshwater Institute | Bolton Landing | NY |
| Denver Water Department | Denver | CO |
| Fairfax County Environmental Services | Lorton | VA |
| Florida Department of Environmental Protection | Tallahassee | FL |
| Huffman Laboratories | Golden | CO |
| Institute of Ecosystem Studies | Millbrook | NY |
| J.G. Environmental, Inc. | Kershaw | SC |
| Kansas Geological Survey | Lawrence | KS |
| Lower Colorado River Authority | Austin | TX |
| Madison Public Health Laboratory | Madison | WI |
| Maryland Department of Health and Mental Hygiene | Baltimore | MD |
| Metro Wastewater Reclamation District | Denver | CO |
| Montana Bureau of Mines & Geology | Butte | MT |
| Old Dominion University - Applied Marine Research Laboratory | Norfolk | VA |
| Ouachita Baptist University - Department of Biology | Arkadelphia | AR |
| Rensselaer Polytechnic Institute - Tech Water Research Laboratory | Troy | NY |
| Severn Trent Laboratories | Tallahassee | FL |
| South Florida Water Management District | West Palm Beach | FL |
| Southwest Florida Water Management District | Brooksville | FL |
| Suffolk County Water Authority Laboratory | Hauppauge | NY |
| Trace Element Research Laboratory | College Station | TX |
| U.S. Bureau of Reclamation | Alamosa | CO |
| U.S. Bureau of Reclamation | Boulder City | NV |
| U.S. Department of Agriculture - Cooperative Chemical Analytical Laboratory | Corvallis | OR |
| U.S. Department of Agriculture - Forest Service | Ft. Collins | CO |
| U.S. Geological Survey Geologic Division - Energy Analytical Laboratory | Denver | CO |
| University of Georgia - Soil, Plant, & Water Laboratory | Athens | GA |
| University of Maryland - Chesapeake Biological Laboratory | Solomons | MD |
| University of Maryland - Horn Point Laboratory | Cambridge | MD |
| UZ HydroChemistry Laboratory | Denver | CO |
| Virginia Tech - Occoquan Watershed Monitoring Laboratory | Manassas | VA |
| West Coast Analytical Service, Inc. | Santa Fe Springs | CA |
| WMRC - Hazardous Waste Research Center | Champaign | IL |
| Wyoming Department of Agriculture | Laramie | WY |

**Table 2.** ***Other laboratory participants in the analyses of standard reference samples distributed in March 2003 -- continued***

| Middle East Participating Laboratory | Location | |
|---|---|---|
| Bethlehem University - Water & Soil Environmental Research Unit | Bethlehem | West Bank via Israel |
| Birzeit University - Center for Environ. & Occupational Health Sciences | Ramallah | West Bank via Israel |
| Geological Survey of Israel Laboratory | Jerusalem | Israel |
| Israeli Hydrologic Service Laboratory | Beit-Dagan | Israel |
| Mekorot Laboratory | Eylat | Israel |
| Mekorot Laboratory | Ashqelon | Israel |
| Mekorot Laboratory, Rosh-Haayn Laboratory | Ramla | Israel |
| Mekorot Water Co. Ltd. Central Lab | Nazareth Illit | Israel |
| Palestinian Water Authority | Al-Beireh | West Bank via Israel |
| Public Health Laboratory | Tel Aviv | Israel |
| Public Health Laboratory - Ministry of Health | Beer Sheva | Israel |
| 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 is available to purchase by participating laboratories and USGS offices for use in their quality-control programs.

Trace constituents sample T-173 was prepared using water collected from Clear Creek east of Blackhawk, Colorado. The water was pumped through a 0.2- and 0.1-micrometer (µm) filter into a 1325-liter (L) polypropylene drum. The water was continuously circulated and passed through a 0.1-µm filter and ultraviolet sterilizer for 24 hours. The water was then acidified to a pH <2 with nitric acid ($HNO_3$) and chlorinated to 5 parts per million (ppm) free chlorine with sodium hypochlorite. Some trace constituent concentrations were adjusted by adding reagent-grade chemicals. The sample was circulated through a 0.1-µm filter and an ultraviolet sterilizer for an additional 24 hours prior and during bottling. The 500-milliliter (mL) polypropylene bottles and caps were acid leached with 0.16N $HNO_3$, deionized-water rinsed, and autoclave sterilized.

Major constituents sample M-166 was prepared using water collected from Clear Creek west of Idaho Springs, Colorado. The water was pumped through a 0.2- and 0.1-µm filter into a 1325-L polypropylene drum. The water was continuously circulated and passed through a 0.1-µm filter and ultraviolet sterilizer for 24 hours. The water was then chlorinated to 5-ppm free chlorine with sodium hypochlorite. Some major constituent concentrations were adjusted by adding reagent-grade chemicals. The sample was circulated an additional 24 hours, then allowed to sit for 48 hours. During bottling, the sample was pumped through an ultraviolet sterilizer and a 0.1-µm filter. The 500-mL polypropylene bottles and caps were acid leached with 0.16N $HNO_3$, deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-77 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-µm filter and kept chilled with ice (12 degrees Celsius) during the entire preparation procedure. Ultraviolet sterilization was performed 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-78 was prepared in a 190-L polypropylene drum using water collected from Bear Creek east of Kittredge, Colorado. This SRS was prepared the week prior to sample distribution. The water was circulated through a 0.1-µm filter and kept chilled with ice (12 degrees Celsius) during the entire preparation procedure. Ultraviolet sterilization was performed 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-40 was prepared in a 600-L polypropylene drum with snow collected north of Loveland Valley Ski Area, Colorado. The desired phosphate and fluoride concentrations were obtained by adding reagent-grade chemicals. Prior and during bottling, the sample was circulated through a 0.1-µm filter and an ultraviolet sterilizer. The 500-mL polypropylene bottles and caps were acid leached with 0.16N $HNO_3$, deionized-water rinsed, and autoclave sterilized.

Mercury sample Hg-36 was prepared using deionized water. The sample was prepared in a 45-L glass carboy. It was preserved with 5 mL/L of 12 N HCl. The desired mercury concentration was obtained by adding a mercury standard solution. The 250-mL borsilicate 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 1 in Hg-36 (mercury) to 28 in T-173 (trace constituents).

**Table 3.** ***Analytes determined in standard reference samples distributed in March 2003***

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

| Constituent or Property | | Units | T-173 | M-166 | N-77 | N-78 | P-40 | Hg-36 |
|---|---|---|---|---|---|---|---|---|
| Acidity | Acidity as $CaCO_3$ | mg/L | | | | | X | |
| Alk | Alkalinity as $CaCO_3$ | mg/L | | X | | | | |
| Ag | Silver | µg/L | X | | | | | |
| Al | Aluminum | µg/L | X | | | | | |
| As | Arsenic | µg/L | X | | | | | |
| B | Boron | µg/L | X | X | | | | |
| Ba | Barium | µg/L | X | | | | | |
| Be | Beryllium | µg/L | X | | | | | |
| Ca | Calcium | mg/L | X | X | | | X | |
| Cd | Cadmium | µg/L | X | | | | | |
| Cl | Chloride | mg/L | | X | | | X | |
| Co | Cobalt | µg/L | X | | | | | |
| Cr | Chromium | µg/L | X | | | | | |
| Cu | Copper | µg/L | X | | | | | |
| ROE | Dissolved Solids | mg/L | | X | | | | |
| F | Fluoride | mg/L | | X | | | X | |
| Fe | Iron | µg/L | X | | | | | |
| Hg | Mercury | µg/L | | | | | | X |
| K | Potassium | mg/L | X | X | | | X | |
| Li | Lithium | µg/L | X | | | | | |
| Mg | Magnesium | mg/L | X | X | | | X | |
| Mn | Manganese | µg/L | X | | | | | |
| Mo | Molybdenum | µg/L | X | | | | | |
| Na | Sodium | mg/L | X | X | | | X | |
| $NH_3$ as N | Ammonia | mg/L | | | X | X | | |
| $NH_3$ + Org N as N | Ammonia + Organic N | mg/L | | | X | X | | |
| Ni | Nickel | µg/L | X | | | | | |
| $NO_3$ as N | Nitrate | mg/L | | | X | X | | |
| Pb | Lead | µg/L | X | | | | | |
| pH | pH | unit | | X | | | X | |
| $PO_4$ as P | Orthophosphate | mg/L | | | X | X | X | |
| total P as P | Phosphorus | mg/L | | X | X | X | | |
| Sb | Antimony | µg/L | X | | | | | |
| Se | Selenium | µg/L | X | | | | | |
| $SiO_2$ | Silica | mg/L | X | X | | | | |
| $SO_4$ | Sulfate | mg/L | | X | | | X | |
| Sp Cond | Specific Conductance | µS/cm | | X | | | X | |
| Sr | Strontium | µg/L | X | X | | | | |
| Tl | Thallium | µg/L | X | | | | | |
| U | Uranium | µg/L | X | | | | | |
| V | Vanadium | µg/L | X | X | | | | |
| Zn | Zinc | µg/L | X | | | | | |

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

Participating laboratories were also asked to identify the method used, such as those references listed below.


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 on the mean in traditional parametric statistics. Analytical data for each analyte are presented in tabular and graphical forms in tables 11 - 16. Tabulated data for each analyte include the laboratory identification number; reported values; analytical method; most probable value (MPV); number of reported analyses, excluding less than values, (n); data range; the F-pseudosigma; and the Z-value. The Z-value is equivalent to the Z-score of traditional statistics. The F-pseudosigma approximates the standard deviation ($\sigma$) of traditional statistics when the data has a Gaussian distribution.

The median value, calculated from the reported results, is the MPV. The F-pseudosigma is calculated by dividing the fourth-spread (analogous to interquartile range) by 1.349; therefore the smaller the F-pseudosigma the more precise the determinations. The 1.349 value is derived from the number of standard deviations that encompasses 50% of the data. Statistical tables show that 25% of the area under a normal curve lies $0.6745\sigma$ from the mean, so 50% lies $1.349\sigma$. The MPV and F-pseudosigma are replaced with the term "inadequate data" when the overall number of analyses is less than seven or the calculated F-pseudosigma is greater than the MPV. However, if an analyte has at least five analyses by a given method, the median and F-pseudosigma are reported in the block of data listed for each method. Based on an assessment of analyte data (Keith Long, Branch of Quality Systems, verbal comm., 1998), when the F-pseudosigma is less than 5 percent of the MPV, the rating criterion is set to 5 percent of the MPV. When applicable, the rating criterion is shown in tables 5 - 17.

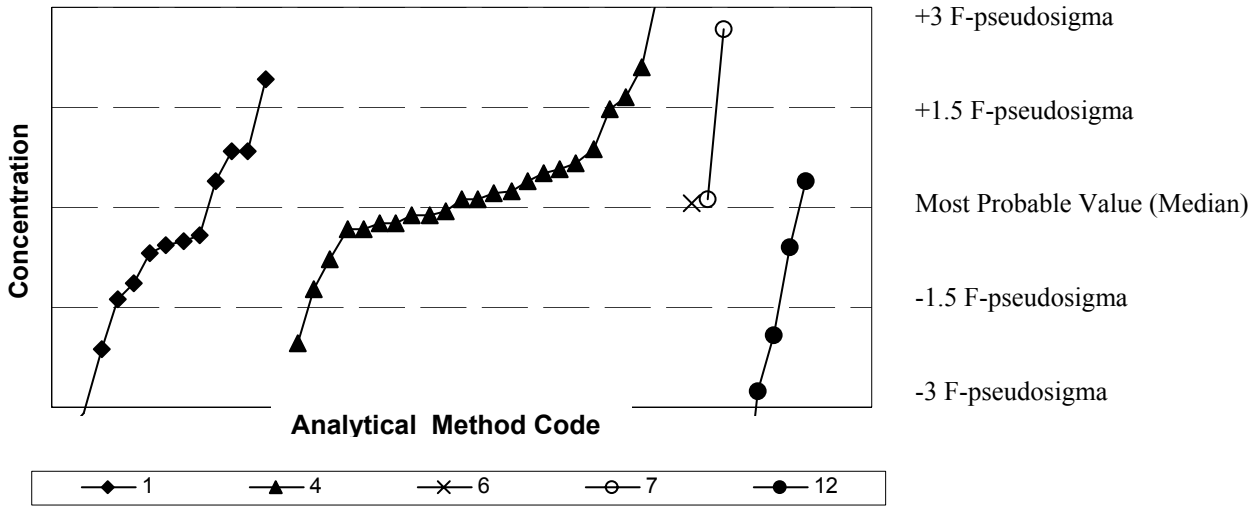
A graphical plot of the reported data is shown in figure 1. The upper and lower boundaries of the graphical plots are +3 and -3 F-pseudosigma deviations from the median. Reported values are grouped by analytical method in ascending order of value.

## 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 this 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 (known as false negative) and has a Z-value greater than 2. In this case, the laboratory would receive a rating of 0 for that analyte.

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 +/- 3 F-pseudosigma from the median are not shown on the graphs.

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

## REFERENCE

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

**Table 4.** ***Overall laboratory performance ratings for standard reference samples distributed March 2003***

[SRS, standard reference sample; Lab, laboratory identification number; 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-173, M-166, N-77, N-78, P-40, HG-36) respectively; NR, not rated; --, not reported.]

| | | SRS | T-173 | | M-166 | | N-77 | | N-78 | | P-40 | | HG-36 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | OWR | V/66 | OLR | V/28 | OLR | V/16 | OLR | V/5 | OLR | V/5 | OLR | V/11 | OLR | V/1 |
| **1** | 3.3 | 63 | 3.3 | 28 | 3.3 | 15 | 3.6 | 5 | 3.8 | 5 | 2.8 | 9 | 3.0 | 1 |
| **2** | 3.5 | 8 | | | -- | -- | | | -- | -- | 3.5 | 8 | -- | -- |
| **4** | 3.7 | 3 | | | 3.7 | 3 | | | -- | -- | | | -- | -- |
| **5** | 2.8 | 56 | 2.9 | 21 | 3.3 | 16 | 1.2 | 5 | 2.6 | 5 | 2.7 | 9 | -- | -- |
| **7** | 2.6 | 24 | 2.6 | 24 | -- | -- | | | -- | -- | | | -- | -- |
| **8** | 2.5 | 58 | 2.8 | 27 | 2.7 | 14 | 2.0 | 4 | 0.4 | 5 | 2.5 | 8 | -- | -- |
| **10** | 3.3 | 31 | 2.8 | 9 | 3.6 | 12 | 3.4 | 5 | 3.2 | 5 | | | -- | -- |
| **12** | 2.7 | 22 | 2.7 | 13 | 2.7 | 9 | | | -- | -- | | | -- | -- |
| **16** | 2.8 | 50 | 2.8 | 25 | 2.7 | 15 | 2.8 | 5 | 3.2 | 5 | | | -- | -- |
| **18** | 1.7 | 35 | 1.3 | 16 | 2.2 | 14 | | | 1.5 | 4 | | | 2.0 | 1 |
| **21** | 3.3 | 6 | 0.0 | 1 | -- | -- | 4.0 | 5 | -- | -- | | | -- | -- |
| **23** | 2.5 | 44 | 2.0 | 20 | 3.8 | 6 | 3.3 | 4 | 1.6 | 5 | 3.1 | 9 | -- | -- |
| **24** | 3.5 | 24 | 3.1 | 11 | 3.8 | 13 | | | -- | -- | | | -- | -- |
| **25** | 2.6 | 39 | 2.8 | 16 | 2.7 | 15 | | | -- | -- | 2.0 | 8 | -- | -- |
| **26** | 0.0 | 3 | | | -- | -- | | | 0.0 | 3 | | | -- | -- |
| **30** | 2.9 | 19 | 2.3 | 8 | 3.4 | 9 | | | 3.5 | 2 | | | -- | -- |
| **31** | 4.0 | 5 | | | -- | -- | 4.0 | 5 | -- | -- | | | -- | -- |
| **32** | 3.3 | 45 | 3.3 | 28 | 3.4 | 16 | | | -- | -- | | | 0.0 | 1 |
| **33** | 1.7 | 40 | 1.2 | 9 | 1.7 | 13 | 0.5 | 4 | 2.3 | 4 | 2.3 | 10 | -- | -- |
| **38** | 3.3 | 26 | | | 3.4 | 9 | 3.6 | 5 | 2.8 | 5 | 3.4 | 7 | -- | -- |
| **42** | 2.5 | 48 | 2.4 | 27 | 2.6 | 15 | 2.3 | 3 | 3.3 | 3 | | | -- | -- |
| **45** | 2.9 | 58 | 3.0 | 26 | 2.7 | 15 | 1.3 | 3 | 4.0 | 3 | 3.4 | 10 | 3.0 | 1 |
| **46** | 3.4 | 42 | 3.5 | 11 | 3.7 | 12 | 3.5 | 4 | 2.2 | 5 | 3.3 | 9 | 4.0 | 1 |
| **50** | 3.3 | 44 | 3.4 | 27 | 3.1 | 13 | 3.0 | 2 | 4.0 | 2 | | | -- | -- |
| **51** | 3.4 | 5 | | | -- | -- | 3.4 | 5 | -- | -- | | | -- | -- |
| **59** | 3.2 | 57 | 3.2 | 25 | 3.3 | 15 | 3.2 | 5 | 3.0 | 5 | 3.2 | 6 | 4.0 | 1 |
| **64** | 3.5 | 32 | 4.0 | 5 | 3.6 | 10 | 3.8 | 4 | 3.0 | 4 | 3.1 | 9 | -- | -- |
| **70** | 3.0 | 49 | 2.9 | 24 | 3.2 | 15 | 3.2 | 5 | 2.8 | 5 | | | -- | -- |
| **72** | 1.4 | 10 | | | -- | -- | 0.6 | 5 | 2.2 | 5 | | | -- | -- |
| **76** | 3.9 | 31 | 3.9 | 18 | 3.8 | 10 | 4.0 | 1 | 4.0 | 2 | | | -- | -- |
| **80** | 2.5 | 16 | | | 3.0 | 10 | 1.3 | 3 | 2.0 | 3 | | | -- | -- |
| **86** | 3.2 | 36 | 3.2 | 15 | 3.7 | 9 | 2.0 | 3 | 2.3 | 4 | 3.8 | 5 | -- | -- |
| **89** | 2.4 | 27 | 2.0 | 4 | 3.0 | 7 | 2.4 | 5 | 2.2 | 5 | 2.0 | 6 | -- | -- |
| **90** | 2.3 | 6 | | | -- | -- | 2.7 | 3 | 2.0 | 3 | | | -- | -- |
| **91** | 2.2 | 11 | | | 3.8 | 4 | 2.0 | 3 | 0.8 | 4 | | | -- | -- |
| **97** | 2.2 | 20 | 2.2 | 20 | -- | -- | | | -- | -- | | | -- | -- |
| **100** | 2.6 | 38 | 2.5 | 23 | 2.9 | 15 | | | -- | -- | | | -- | -- |
| **102** | 2.4 | 21 | | | 2.3 | 11 | 2.0 | 5 | 3.2 | 5 | | | -- | -- |
| **105** | 2.4 | 51 | 2.3 | 19 | 2.6 | 14 | 1.8 | 4 | 3.0 | 5 | 2.2 | 9 | NR | 0 |
| **110** | 3.3 | 16 | 3.2 | 6 | -- | -- | 3.5 | 2 | -- | -- | 3.3 | 8 | -- | -- |
| **113** | 3.1 | 51 | 2.3 | 19 | 3.5 | 14 | 2.8 | 5 | 4.0 | 5 | 3.6 | 8 | -- | -- |
| **118** | 3.6 | 14 | | | 3.5 | 4 | 3.4 | 5 | 3.8 | 5 | | | -- | -- |
| **121** | 4.0 | 1 | | | 4.0 | 1 | | | -- | -- | | | -- | -- |
| **134** | 3.7 | 62 | 3.6 | 27 | 3.9 | 16 | 2.8 | 4 | 3.8 | 5 | 3.9 | 10 | -- | -- |
| **138** | 3.4 | 62 | 3.0 | 25 | 3.3 | 16 | 3.8 | 5 | 4.0 | 5 | 3.6 | 10 | 4.0 | 1 |
| **142** | 3.1 | 53 | 3.3 | 27 | 3.1 | 16 | 3.4 | 5 | 2.0 | 5 | | | -- | -- |
| **146** | 2.0 | 41 | 1.9 | 20 | 2.5 | 12 | 1.3 | 4 | 1.8 | 5 | | | -- | -- |
| **147** | 4.0 | 6 | 4.0 | 6 | -- | -- | | | -- | -- | | | -- | -- |
| **149** | 3.1 | 30 | 2.9 | 22 | 3.6 | 8 | | | -- | -- | | | -- | -- |
| **180** | 2.9 | 53 | 2.6 | 22 | 3.4 | 11 | 3.0 | 5 | 3.2 | 5 | 3.0 | 9 | 0.0 | 1 |

**Table 4.** ***Overall laboratory performance ratings for standard reference samples distributed March 2003 -- continued***

[SRS, standard reference sample; Lab, laboratory identification number; 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-173, M-166, N-77, N-78, P-40, HG-36) respectively; NR, not rated; --, not reported.]

| | | SRS | T-173 | | M-166 | | N-77 | | N-78 | | P-40 | | HG-36 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | OWR | V/66 | OLR | V/28 | OLR | V/16 | OLR | V/5 | OLR | V/5 | OLR | V/11 | OLR | V/1 |
| **183** | 2.5 | 17 | 1.9 | 7 | 2.8 | 8 | | | 3.5 | 2 | | | 0.0 | 1 |
| **190** | 3.0 | 52 | 2.9 | 18 | 2.9 | 14 | 3.0 | 5 | 4.0 | 5 | 2.7 | 10 | -- | -- |
| **193** | 2.6 | 31 | 2.1 | 7 | 2.8 | 9 | 2.8 | 4 | 2.5 | 4 | 2.9 | 7 | -- | -- |
| **198** | 2.9 | 8 | | | -- | -- | 3.0 | 4 | 2.8 | 4 | | | -- | -- |
| **205** | 0.0 | 2 | | | -- | -- | | | 0.0 | 2 | | | -- | -- |
| **208** | 3.0 | 5 | | | 4.0 | 2 | | | 2.0 | 2 | 3.0 | 1 | -- | -- |
| **212** | 2.6 | 49 | 2.9 | 28 | 2.6 | 16 | | | 0.8 | 5 | | | -- | -- |
| **219** | 2.9 | 37 | 3.1 | 26 | 2.5 | 11 | | | -- | -- | | | -- | -- |
| **220** | 2.8 | 26 | 2.9 | 11 | 2.6 | 10 | | | 2.8 | 5 | | | -- | -- |
| **224** | 2.6 | 9 | | | 2.6 | 9 | | | -- | -- | | | -- | -- |
| **227** | 3.4 | 18 | 3.2 | 5 | 3.6 | 8 | | | 3.4 | 5 | | | -- | -- |
| **230** | 2.9 | 41 | 2.7 | 27 | 3.3 | 14 | | | -- | -- | | | -- | -- |
| **234** | 3.0 | 49 | 3.0 | 25 | 3.4 | 16 | 3.0 | 4 | 2.0 | 4 | | | -- | -- |
| **235** | 2.9 | 29 | 2.9 | 28 | -- | -- | | | -- | -- | | | -- | -- |
| **245** | 2.0 | 1 | | | -- | -- | | | -- | -- | | | 3.0 | 1 |
| **247** | 2.0 | 46 | 2.8 | 10 | 2.7 | 16 | 0.8 | 5 | 2.8 | 5 | 2.3 | 10 | 2.0 | 1 |
| **254** | 4.0 | 2 | | | 4.0 | 2 | | | -- | -- | | | NR | 0 |
| **256** | 2.4 | 32 | 1.9 | 18 | 3.0 | 14 | | | -- | -- | | | -- | -- |
| **259** | 3.5 | 34 | 3.3 | 19 | 3.8 | 15 | | | -- | -- | | | -- | -- |
| **263** | 3.3 | 9 | | | 3.3 | 9 | | | -- | -- | | | -- | -- |
| **265** | 3.2 | 46 | 3.2 | 28 | 3.6 | 11 | | | -- | -- | 2.7 | 7 | -- | -- |
| **266** | 3.8 | 12 | | | 3.8 | 12 | | | -- | -- | | | -- | -- |
| **269** | 3.8 | 5 | | | 3.8 | 5 | | | -- | -- | | | -- | -- |
| **273** | 2.4 | 38 | 2.3 | 14 | 2.6 | 13 | | | -- | -- | 2.3 | 11 | -- | -- |
| **274** | 1.4 | 27 | 1.0 | 5 | 1.1 | 12 | | | -- | -- | 1.9 | 10 | -- | -- |
| **276** | 3.2 | 6 | | | 3.2 | 6 | | | -- | -- | | | -- | -- |
| **277** | 2.3 | 28 | 2.0 | 13 | 2.5 | 10 | | | -- | -- | 2.8 | 5 | -- | -- |
| **279** | 3.5 | 12 | 3.8 | 4 | 3.8 | 4 | | | -- | -- | 3.0 | 4 | -- | -- |
| **301** | 1.1 | 10 | | | 0.4 | 5 | | | -- | -- | 1.8 | 5 | -- | -- |
| **304** | 3.5 | 22 | 3.5 | 21 | -- | -- | | | -- | -- | | | -- | -- |
| **307** | 2.6 | 19 | 2.3 | 10 | 3.2 | 6 | | | 2.7 | 3 | | | 3.0 | 1 |
| **313** | 3.1 | 10 | | | -- | -- | 3.6 | 5 | 2.6 | 5 | | | -- | -- |
| **316** | 3.8 | 5 | | | -- | -- | 3.8 | 5 | -- | -- | | | -- | -- |
| **318** | 3.2 | 5 | | | -- | -- | 3.2 | 5 | -- | -- | | | -- | -- |
| **319** | 2.0 | 2 | | | 2.0 | 2 | | | -- | -- | | | -- | -- |
| **320** | 3.6 | 8 | | | -- | -- | 3.6 | 5 | 3.7 | 3 | | | -- | -- |
| **321** | 2.8 | 17 | | | 2.9 | 7 | 2.5 | 4 | -- | -- | 3.0 | 6 | -- | -- |
| **323** | 3.0 | 61 | 3.2 | 27 | 3.4 | 16 | 0.8 | 5 | 2.0 | 4 | 3.4 | 9 | -- | -- |
| **326** | 2.9 | 30 | 2.5 | 16 | 3.8 | 8 | | | -- | -- | 2.7 | 6 | -- | -- |
| **327** | 2.1 | 16 | 2.0 | 2 | 1.5 | 6 | 3.0 | 2 | 3.3 | 3 | 1.3 | 3 | -- | -- |
| **328** | 2.0 | 64 | 2.3 | 28 | 2.3 | 16 | 0.4 | 5 | 2.5 | 4 | 1.7 | 11 | -- | -- |
| **330** | 3.2 | 25 | 3.2 | 20 | 3.2 | 5 | | | -- | -- | | | -- | -- |
| **333** | 3.8 | 16 | | | 3.6 | 5 | 4.0 | 2 | -- | -- | 3.8 | 9 | -- | -- |
| **341** | 2.9 | 24 | | | 3.1 | 14 | 2.4 | 5 | 3.0 | 5 | | | -- | -- |
| **356** | 3.3 | 37 | 3.1 | 26 | 3.7 | 6 | | | 3.8 | 4 | | | -- | -- |
| **366** | 2.8 | 21 | | | 3.5 | 11 | 1.0 | 5 | 3.2 | 5 | | | 4.0 | 1 |
| **369** | 2.8 | 5 | | | -- | -- | 2.8 | 5 | -- | -- | | | -- | -- |
| **373** | 2.9 | 9 | | | -- | -- | 2.0 | 4 | 3.6 | 5 | | | -- | -- |
| **374** | 4.0 | 1 | | | 4.0 | 1 | | | -- | -- | | | -- | -- |
| **377** | 3.4 | 21 | | | 3.7 | 16 | 2.6 | 5 | -- | -- | | | -- | -- |

**Table 4.** ***Overall laboratory performance ratings for standard reference samples distributed March 2003***
***-- continued***

[SRS, standard reference sample; Lab, laboratory identification number; 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-173, M-166, N-77, N-78, P-40, HG-36) respectively; NR, not rated; --, not reported.]

| | | SRS | T-173 | | M-166 | | N-77 | | N-78 | | P-40 | | HG-36 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | OWR | V/66 | OLR | V/28 | OLR | V/16 | OLR | V/5 | OLR | V/5 | OLR | V/11 | OLR | V/1 |
| **378** | 3.3 | 10 | | | -- | -- | 3.8 | 5 | 2.8 | 5 | | | -- | -- |
| **379** | 1.9 | 48 | 1.4 | 17 | 2.3 | 12 | 2.6 | 5 | 2.8 | 5 | 1.7 | 9 | -- | -- |
| **380** | 1.5 | 10 | | | -- | -- | 1.6 | 5 | 1.4 | 5 | | | -- | -- |
| **381** | 4.0 | 3 | | | -- | -- | 4.0 | 3 | -- | -- | | | -- | -- |
| **383** | 3.1 | 16 | | | 3.0 | 6 | 4.0 | 2 | 3.0 | 2 | 3.0 | 6 | -- | -- |
| **386** | 2.3 | 30 | 1.0 | 7 | 2.8 | 13 | 3.2 | 5 | 2.0 | 5 | | | -- | -- |
| **388** | 3.8 | 4 | | | 3.8 | 4 | | | -- | -- | | | -- | -- |
| **389** | 2.4 | 7 | | | 2.3 | 3 | 2.5 | 4 | -- | -- | | | -- | -- |
| **390** | 3.1 | 22 | 3.1 | 22 | -- | -- | | | -- | -- | | | -- | -- |
| **391** | 0.0 | 1 | | | -- | -- | | | 0.0 | 1 | | | -- | -- |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents)***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Silver (Ag)** | | **Aluminum (Al)** | | **Arsenic (As)** | | **Boron (B)** | | **Barium (Ba)** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MPV = | 1.14 µg/L | | 71.0 µg/L | | 2.67 µg/L | | 158 µg/L | | 42.2 µg/L | |
| | | F-pseudosigma = | 0.104 | | 5.34 | | 0.267 | | 11.8 | | 1.95 (2.11) | |
| **Lab** | OLR | V/28 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 3.3 | 28 | 0.387 | 0 | 75.65 | 3 | 2.575 | 4 | 159.5 | 4 | 45.17 | 2 |
| **5** | 2.9 | 21 | <4.00 | NR | 96.7 | 0 | 2.62 | 4 | 159 | 4 | 43.6 | 3 |
| **7** | 2.6 | 24 | | | 68.2 | 3 | 5.73 | 0 | 148 | 3 | 28.7 | 0 |
| **8** | 2.8 | 27 | 1.03 | 2 | 65 | 2 | 2.55 | 4 | 130 | 0 | 43.1 | 4 |
| **10** | 2.8 | 9 | | | -- | -- | 2.5 | 3 | -- | -- | | |
| **12** | 2.7 | 13 | 1 | 2 | -- | -- | | | -- | -- | | |
| **16** | 2.8 | 25 | 1.2 | 3 | 71 | 4 | 2.8 | 4 | -- | -- | 39 | 2 |
| **18** | 1.3 | 16 | <3 | NR | <100 | NR | 2.66 | 4 | 150 | 3 | 38.8 | 1 |
| **21** | 0.0 | 1 | | | -- | -- | | | -- | -- | | |
| **23** | 2.0 | 20 | 44 | 0 | -- | -- | 110 | 0 | -- | -- | 40.4 | 3 |
| **24** | 3.1 | 11 | | | <202 | NR | <121 | NR | 156 | 4 | 43.4 | 3 |
| **25** | 2.8 | 16 | < 17 | NR | 67.8 | 3 | < 21 | NR | 165.9 | 3 | 40.1 | 3 |
| **30** | 2.3 | 8 | | | 71 | 4 | 2.7 | 4 | -- | -- | | |
| **32** | 3.3 | 28 | 1.09 | 4 | 72.5 | 4 | 2.58 | 4 | 150 | 3 | 41.5 | 4 |
| **33** | 1.2 | 9 | | | 102.3 | 0 | | | -- | -- | 44.79 | 2 |
| **42** | 2.4 | 27 | <1 | NR | 68.8 | 4 | 2.91 | 3 | 157 | 4 | 42.4 | 4 |
| **45** | 3.0 | 26 | 1.14 | 4 | 68.1 | 3 | 2.49 | 3 | 158 | 4 | 39.8 | 2 |
| **46** | 3.5 | 11 | | | <100 | NR | <3 | NR | -- | -- | 41 | 3 |
| **50** | 3.4 | 27 | 1.08 | 3 | 74.6 | 3 | 2.67 | 4 | 162 | 4 | 41.6 | 4 |
| **59** | 3.2 | 25 | 0.78 | 0 | 66.7 | 3 | 2.7 | 4 | 32.6 | 0 | 42.5 | 4 |
| **64** | 4.0 | 5 | | | -- | -- | | | -- | -- | | |
| **70** | 2.9 | 24 | <10 | NR | 76.7 | 2 | 2.6 | 4 | -- | -- | 40 | 2 |
| **76** | 3.9 | 18 | <2.0 | NR | -- | -- | 2.669 | 4 | -- | -- | 42 | 4 |
| **86** | 3.2 | 15 | | | 70.3 | 4 | | | 154 | 4 | 39.5 | 2 |
| **89** | 2.0 | 4 | | | -- | -- | | | -- | -- | | |
| **97** | 2.2 | 20 | 1.32 | 1 | 73 | 4 | 2.04 | 0 | -- | -- | 41.2 | 4 |
| **100** | 2.5 | 23 | 1.17 | 4 | 65.2 | 2 | 2.13 | 0 | 150 | 3 | 46.4 | 0 |
| **105** | 2.3 | 19 | 1.1 | 4 | 75 | 3 | <4.0 | NR | <200 | NR | 47 | 0 |
| **110** | 3.2 | 6 | | | 71.66 | 4 | | | -- | -- | | |
| **113** | 2.3 | 19 | 1 | 2 | 71 | 4 | | | -- | -- | 42.3 | 4 |
| **134** | 3.6 | 27 | 1.24 | 2 | 75 | 3 | 2.69 | 4 | 157 | 4 | 42 | 4 |
| **138** | 3.0 | 25 | 1.14 | 4 | 67.7 | 3 | 2.01 | 0 | 146 | 2 | 40.1 | 3 |
| **142** | 3.3 | 27 | <1 | NR | 69.3 | 4 | 2.72 | 4 | 174 | 2 | 43 | 4 |
| **146** | 1.9 | 20 | <10.0 | NR | 60 | 0 | 5 | 0 | -- | -- | 43.6 | 3 |
| **147** | 4.0 | 6 | | | -- | -- | 2.57 | 4 | -- | -- | | |
| **149** | 2.9 | 22 | 1.1 | 4 | 71 | 4 | 3 | 2 | -- | -- | 41 | 3 |
| **180** | 2.6 | 22 | 0.997 | 2 | 62 | 1 | 2.59 | 4 | -- | -- | 40.1 | 3 |
| **183** | 1.9 | 7 | | | -- | -- | | | -- | -- | 40.55 | 3 |
| **190** | 2.9 | 18 | 1.06 | 3 | 76.2 | 3 | 2.1 | 0 | -- | -- | | |
| **193** | 2.1 | 7 | 1.06 | 3 | -- | -- | | | -- | -- | | |
| **212** | 2.9 | 28 | 1.19 | 3 | 65.2 | 2 | 2.95 | 2 | 145 | 2 | 45.3 | 2 |
| **219** | 3.1 | 26 | | | 70.9 | 4 | 3.4 | 0 | 158 | 4 | 42.5 | 4 |
| **220** | 2.9 | 11 | | | 74 | 3 | | | 167 | 3 | 41.9 | 4 |
| **227** | 3.2 | 5 | | | -- | -- | | | -- | -- | | |
| **230** | 2.7 | 27 | 1.3 | 1 | 54 | 0 | 2.9 | 3 | 166 | 3 | 43.7 | 3 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Silver (Ag)** | | **Aluminum (Al)** | | **Arsenic (As)** | | **Boron (B)** | | **Barium (Ba)** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MPV = | 1.14 µg/L | | 71.0 µg/L | | 2.67 µg/L | | 158 µg/L | | 42.2 µg/L | |
| | | F-pseudosigma = | 0.104 | | 5.34 | | 0.267 | | 11.8 | | 1.95 (2.11) | |
| **Lab** | OLR | V/28 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **234** | 3.0 | 25 | 1.47 | 0 | 71.9 | 4 | 2.38 | 2 | 172 | 2 | 41.2 | 4 |
| **235** | 2.9 | 28 | 1.16 | 4 | 71.1 | 4 | 2.66 | 4 | 163 | 4 | 42.6 | 4 |
| **247** | 2.8 | 10 | <10 | NR | <80 | NR | <40 | NR | 160 | 4 | 40 | 2 |
| **256** | 1.9 | 18 | 1.4 | 0 | 75 | 3 | 1.88 | 0 | -- | -- | | |
| **259** | 3.3 | 19 | | | 69 | 4 | 2.45 | 3 | 173 | 2 | 43.2 | 4 |
| **265** | 3.2 | 28 | 1.1 | 4 | 68 | 3 | 2.7 | 4 | 150 | 3 | 40 | 2 |
| **273** | 2.3 | 14 | | | 83.2 | 0 | | | 129 | 0 | 43.1 | 4 |
| **274** | 1.0 | 5 | | | -- | -- | | | -- | -- | | |
| **277** | 2.0 | 13 | 1.29 | 2 | 99.6 | 0 | | | -- | -- | | |
| **279** | 3.8 | 4 | | | -- | -- | | | -- | -- | | |
| **304** | 3.5 | 21 | 1.16 | 4 | 73 | 4 | 2.95 | 2 | -- | -- | 42.4 | 4 |
| **307** | 2.3 | 10 | 1.03 | 2 | -- | -- | 2.32 | 2 | -- | -- | | |
| **323** | 3.2 | 27 | 1.12 | 4 | 74 | 3 | 2.7 | 4 | 167 | 3 | 42.8 | 4 |
| **326** | 2.5 | 16 | | | -- | -- | | | 167.5 | 3 | 42.5 | 4 |
| **327** | 2.0 | 2 | | | -- | -- | | | -- | -- | | |
| **328** | 2.3 | 28 | 1 | 2 | 160 | 0 | 2.77 | 4 | 145 | 2 | 43 | 4 |
| **330** | 3.2 | 20 | 1.17 | 4 | 67.2 | 3 | 3.03 | 2 | -- | -- | 41.9 | 4 |
| **356** | 3.1 | 26 | 1.13 | 4 | 65.5 | 2 | 3.06 | 2 | 168 | 3 | 42.7 | 4 |
| **379** | 1.4 | 17 | 1.71 | 0 | 47.3 | 0 | 5.67 | 0 | -- | -- | 41.8 | 4 |
| **386** | 1.0 | 7 | | | -- | -- | | | -- | -- | | |
| **390** | 3.1 | 22 | 1.14 | 4 | 80 | 1 | 2.62 | 4 | -- | -- | 43.3 | 3 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 (Be) | | Calcium (Ca) | | Cadmium (Cd) | | Cobalt (Co) | | Chromium (Cr) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 2.00 µg/L | | 34.8 mg/L | | 1.26 µg/L | | 1.26 µg/L | | 4.88 µg/L | |
| F-pseudosigma = | 0.137 | | 0.96 (1.74) | | 0.082 | | 0.104 | | 0.330 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 1.931 | 4 | 35.4 | 4 | 1.288 | 4 | 1.366 | 2 | 4.87 | 4 |
| **5** | 1.98 | 4 | 35.3 | 4 | 1.22 | 4 | <3.00 | NR | 6.8 | 0 |
| **7** | 2.07 | 3 | 33.3 | 3 | 1.38 | 1 | 1.23 | 4 | 4.68 | 3 |
| **8** | 1.76 | 1 | 34.4 | 4 | 1.17 | 2 | 1.1 | 1 | 4.88 | 4 |
| **10** | | | -- | -- | 1.3 | 3 | -- | -- | 5 | 4 |
| **12** | | | 34.6 | 4 | 1.3 | 3 | -- | -- | | |
| **16** | 2 | 4 | 33 | 2 | 1.7 | 0 | 1.4 | 2 | 5.3 | 2 |
| **18** | 1.96 | 4 | 32.9 | 2 | <3 | NR | <5 | NR | <5 | NR |
| **21** | | | -- | -- | | | -- | -- | | |
| **23** | 1.97 | 4 | 35 | 4 | 1.03 | 0 | -- | -- | 5.41 | 1 |
| **24** | | | 33.4 | 3 | <10 | NR | <9 | NR | <26 | NR |
| **25** | 1.8 | 2 | 37.67 | 1 | < 8 | NR | < 4 | NR | < 15 | NR |
| **30** | | | 36 | 3 | | | -- | -- | | |
| **32** | 2 | 4 | 34 | 4 | 1.23 | 4 | 1.36 | 3 | 4.48 | 2 |
| **33** | | | 33.08 | 3 | | | -- | -- | | |
| **42** | 1.89 | 3 | 33.7 | 3 | <1 | 0 | 1.09 | 1 | 4.56 | 3 |
| **45** | 1.96 | 4 | 34.8 | 4 | 1.17 | 2 | 1.2 | 3 | 4.67 | 3 |
| **46** | <2.0 | NR | 35.6 | 4 | 1.24 | 4 | -- | -- | 5.3 | 2 |
| **50** | 2.15 | 2 | 34.9 | 4 | 1.22 | 4 | 1.27 | 4 | 5.1 | 3 |
| **59** | 2.02 | 4 | 34.1 | 4 | 1.27 | 4 | 1.2 | 3 | 4.69 | 3 |
| **64** | | | 35 | 4 | | | -- | -- | | |
| **70** | 2.1 | 3 | 35.7 | 3 | 1.4 | 1 | 1.2 | 3 | 4.8 | 4 |
| **76** | 1.999 | 4 | 34.78 | 4 | 1.294 | 4 | 1.229 | 4 | 4.688 | 3 |
| **86** | 1.82 | 2 | 35.1 | 4 | 1.18 | 3 | 1.6 | 0 | | |
| **89** | | | -- | -- | 1.2 | 3 | -- | -- | | |
| **97** | 2.23 | 1 | 34.2 | 4 | 1.38 | 1 | 1.59 | 0 | 5.24 | 2 |
| **100** | 2.11 | 3 | 37.1 | 2 | 1.3 | 3 | <10 | NR | 4.9 | 4 |
| **105** | 2 | 4 | 37.5 | 1 | 1.1 | 1 | <50 | NR | 5.1 | 3 |
| **110** | | | 34.86 | 4 | | | -- | -- | | |
| **113** | 2.3 | 0 | 35 | 4 | 1.7 | 0 | -- | -- | 4.2 | 0 |
| **134** | 2.1 | 3 | 35 | 4 | 1.13 | 1 | 1.3 | 4 | 4.77 | 4 |
| **138** | 1.91 | 3 | 34.7 | 4 | 1.27 | 4 | 1.26 | 4 | 3.19 | 0 |
| **142** | 1.92 | 3 | 35.9 | 3 | 1.23 | 4 | 1.16 | 3 | 4.49 | 2 |
| **146** | 1.58 | 0 | 36.8 | 2 | 1.14 | 2 | <10.0 | NR | 5.36 | 2 |
| **147** | | | -- | -- | 1.25 | 4 | -- | -- | | |
| **149** | 2 | 4 | 34.2 | 4 | 1.2 | 3 | 1 | 0 | 5 | 4 |
| **180** | 1.69 | 0 | 34.6 | 4 | 1.19 | 3 | 1.13 | 2 | 4.09 | 0 |
| **183** | | | -- | -- | 1.12 | 1 | -- | -- | 5.38 | 1 |
| **190** | | | 35.7 | 3 | 1.26 | 4 | -- | -- | 4.07 | 0 |
| **193** | | | 32.9 | 2 | 1.37 | 2 | -- | -- | | |
| **212** | 2.16 | 2 | 33.7 | 3 | 1.4 | 1 | 1.31 | 4 | 4.35 | 1 |
| **219** | 2 | 4 | 34.3 | 4 | 1.25 | 4 | 1.26 | 4 | 4.5 | 2 |
| **220** | | | 34.4 | 4 | | | -- | -- | | |
| **227** | | | 36 | 3 | 1.22 | 4 | -- | -- | | |
| **230** | 2.1 | 3 | 35 | 4 | 1.3 | 3 | 1.3 | 4 | 4.8 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 (Be)** | | **Calcium (Ca)** | | **Cadmium (Cd)** | | **Cobalt (Co)** | | **Chromium (Cr)** | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 2.00 µg/L | | 34.8 mg/L | | 1.26 µg/L | | 1.26 µg/L | | 4.88 µg/L | |
| F-pseudosigma = | 0.137 | | 0.96 (1.74) | | 0.082 | | 0.104 | | 0.330 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **234** | 2.13 | 3 | 34.8 | 4 | 1.17 | 2 | <2.0 | NR | 6.12 | 0 |
| **235** | 1.74 | 1 | 35.3 | 4 | 1.41 | 1 | 1.28 | 4 | 4.88 | 4 |
| **247** | <10 | NR | 34 | 4 | <10 | NR | <10 | NR | <10 | NR |
| **256** | 1.98 | 4 | -- | -- | 0.68 | 0 | 1.24 | 4 | 4.38 | 2 |
| **259** | | | 35.4 | 4 | 1.25 | 4 | -- | -- | 4.89 | 4 |
| **265** | 2 | 4 | 34.7 | 4 | 1.4 | 1 | 1.1 | 1 | 4.7 | 3 |
| **273** | 2.25 | 1 | 34.5 | 4 | | | -- | -- | | |
| **274** | | | 34.68 | 4 | | | -- | -- | | |
| **277** | | | 32.2 | 2 | 1.15 | 2 | -- | -- | 4.98 | 4 |
| **279** | | | 36.08 | 3 | | | -- | -- | | |
| **304** | 2.25 | 1 | -- | -- | 1.31 | 3 | 1.27 | 4 | 4.82 | 4 |
| **307** | | | -- | -- | 1.3 | 3 | -- | -- | 5.14 | 3 |
| **323** | 2.4 | 0 | 34.6 | 4 | 1.2 | 3 | 1.22 | 4 | 4.8 | 4 |
| **326** | | | 35.1 | 4 | 1.4 | 1 | 2 | 0 | | |
| **327** | <10 | NR | -- | -- | | | -- | -- | | |
| **328** | 1.92 | 3 | 36.6 | 2 | 1.27 | 4 | 4.63 | 0 | 4.9 | 4 |
| **330** | 1.99 | 4 | 35.8 | 3 | 1.25 | 4 | -- | -- | 5.44 | 1 |
| **356** | 1.88 | 3 | 34.4 | 4 | 1.31 | 3 | 1.32 | 3 | 4.73 | 4 |
| **379** | 1.85 | 2 | -- | -- | 1.58 | 0 | 2.02 | 0 | 5.18 | 3 |
| **386** | | | 31.9 | 1 | | | -- | -- | | |
| **390** | | | 36.4 | 3 | 1.32 | 3 | 1.25 | 4 | 4.91 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 = | Copper (Cu) | | Iron (Fe) | | Potassium (K) | | Lithium (Li) | | Magnesium (Mg) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 7.50 µg/L | | 21.4 µg/L | | 3.85 mg/L | | 17.1 µg/L | | 9.38 mg/L | |
| F-pseudosigma = | 0.630 | | 3.43 | | 0.133 (0.192) | | 1.56 | | 0.297 (0.469) | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 7.833 | 3 | 18.2 | 3 | 3.87 | 4 | 15.94 | 3 | 9.25 | 4 |
| **5** | 8.07 | 3 | 25.1 | 2 | 4.59 | 0 | 17.2 | 4 | 9.21 | 4 |
| **7** | 6.79 | 2 | <20 | NR | 4.03 | 3 | <20 | NR | 8.97 | 3 |
| **8** | 6.85 | 2 | <50 | NR | 3.83 | 4 | 15.1 | 2 | 9.2 | 4 |
| **10** | 7.1 | 3 | 24 | 3 | | | -- | -- | | |
| **12** | 8.2 | 2 | 21 | 4 | 3.8 | 4 | -- | -- | 9.49 | 4 |
| **16** | 7.5 | 4 | 21.5 | 4 | 4 | 3 | -- | -- | 9.1 | 3 |
| **18** | 5.75 | 0 | <60 | NR | 3.33 | 0 | -- | -- | 8.32 | 0 |
| **21** | | | 0.0232 | 0 | | | -- | -- | | |
| **23** | 7.58 | 4 | 24.1 | 3 | 3.84 | 4 | -- | -- | 9.68 | 3 |
| **24** | <18 | NR | 29.6 | 0 | 3.85 | 4 | -- | -- | 9.19 | 4 |
| **25** | 9.4 | 0 | 20.6 | 4 | 3.83 | 4 | 16 | 3 | 9.28 | 4 |
| **30** | | | 96 | 0 | | | -- | -- | 9.8 | 3 |
| **32** | 7.68 | 4 | 21.4 | 4 | 3.95 | 3 | 17 | 4 | 9.45 | 4 |
| **33** | | | -- | -- | 3.9 | 4 | -- | -- | 11.54 | 0 |
| **42** | 5.7 | 0 | 0.03 | 0 | 3.82 | 4 | 16.9 | 4 | 9 | 3 |
| **45** | 7.06 | 3 | 19.7 | 4 | 3.72 | 3 | -- | -- | 8.96 | 3 |
| **46** | 7.14 | 3 | <300 | NR | 3.78 | 4 | -- | -- | 9.26 | 4 |
| **50** | 7.5 | 4 | 19.9 | 4 | 3.72 | 3 | 18.5 | 3 | 9.4 | 4 |
| **59** | 7.62 | 4 | < 50 | NR | 3.84 | 4 | 16.7 | 4 | 9.24 | 4 |
| **64** | | | -- | -- | 3.94 | 4 | -- | -- | 9.2 | 4 |
| **70** | 7.1 | 3 | <20 | NR | 4.06 | 2 | -- | -- | 9.61 | 4 |
| **76** | <20.0 | NR | -- | -- | 3.847 | 4 | 16.98 | 4 | 9.395 | 4 |
| **86** | | | -- | -- | 3.95 | 3 | 17.2 | 4 | 9.44 | 4 |
| **89** | 5 | 0 | -- | -- | | | -- | -- | | |
| **97** | 8.29 | 2 | -- | -- | | | -- | -- | 9.39 | 4 |
| **100** | <5 | 0 | 21.5 | 4 | 3.97 | 3 | <0.05 | 0 | 9.37 | 4 |
| **105** | <10 | NR | 20 | 4 | 4.15 | 1 | <25 | NR | 10.3 | 1 |
| **110** | | | -- | -- | 3.68 | 3 | -- | -- | 9.29 | 4 |
| **113** | 10.5 | 0 | 20 | 4 | 3.8 | 4 | -- | -- | 9.4 | 4 |
| **134** | 7.2 | 4 | 21.7 | 4 | 3.9 | 4 | 17.8 | 4 | 9.15 | 4 |
| **138** | 7.31 | 4 | 22.3 | 4 | 3.77 | 4 | -- | -- | 9.32 | 4 |
| **142** | 6.47 | 1 | 20 | 4 | 3.9 | 4 | 18.2 | 3 | 9.52 | 4 |
| **146** | 7.1 | 3 | 25.9 | 2 | 4.43 | 0 | -- | -- | 10 | 2 |
| **147** | 7.55 | 4 | -- | -- | | | -- | -- | | |
| **149** | 8 | 3 | <60 | NR | 3.8 | 4 | -- | -- | 9.2 | 4 |
| **180** | 6.84 | 2 | 20.6 | 4 | 3.79 | 4 | -- | -- | 9.25 | 4 |
| **183** | 9.38 | 0 | -- | -- | | | -- | -- | | |
| **190** | 7.3 | 4 | 20.7 | 4 | 3.48 | 1 | -- | -- | 10.1 | 1 |
| **193** | <12.5 | NR | -- | -- | 3.66 | 3 | -- | -- | 8.93 | 3 |
| **212** | 7.51 | 4 | 26 | 2 | 3.73 | 3 | 18.1 | 3 | 9.31 | 4 |
| **219** | 7.3 | 4 | <20 | NR | 3.95 | 3 | 16.5 | 4 | 9.34 | 4 |
| **220** | | | 19.5 | 3 | 3.83 | 4 | -- | -- | 9.12 | 3 |
| **227** | 8.25 | 2 | -- | -- | | | -- | -- | 9.6 | 4 |
| **230** | 7.9 | 3 | 12 | 0 | 4 | 3 | 18 | 3 | 9.53 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Copper (Cu)** | | **Iron (Fe)** | | **Potassium (K)** | | **Lithium (Li)** | | **Magnesium (Mg)** | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 7.50 µg/L | | 21.4 µg/L | | 3.85 mg/L | | 17.1 µg/L | | 9.38 mg/L | |
| F-pseudosigma = | 0.630 | | 3.43 | | 0.133 (0.192) | | 1.56 | | 0.297 (0.469) | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **234** | 8.23 | 2 | 22.2 | 4 | 3.8 | 4 | 19.7 | 1 | 9.6 | 4 |
| **235** | 7.41 | 4 | 25.2 | 2 | 9.41 | 0 | 15.1 | 2 | 9.59 | 4 |
| **247** | <10 | NR | <50 | NR | 3.55 | 1 | 20 | 1 | 8.87 | 2 |
| **256** | <10 | NR | 14.39 | 0 | | | 17.3 | 4 | | |
| **259** | | | 15.8 | 1 | 3.91 | 4 | -- | -- | 9.6 | 4 |
| **265** | 6.7 | 2 | 20 | 4 | 3.7 | 3 | 16 | 3 | 9.1 | 3 |
| **273** | | | 19.95 | 4 | 3.95 | 3 | 18.5 | 3 | 9.82 | 3 |
| **274** | | | -- | -- | 4.92 | 0 | -- | -- | 10.17 | 1 |
| **277** | 5.76 | 0 | 25.1 | 2 | 4.33 | 0 | -- | -- | 9.77 | 3 |
| **279** | | | -- | -- | 3.8 | 4 | -- | -- | 9.3 | 4 |
| **304** | 7.75 | 4 | -- | -- | | | 15.9 | 3 | | |
| **307** | 6.79 | 2 | <100 | NR | | | -- | -- | | |
| **323** | 7.3 | 4 | <50 | NR | 3.76 | 4 | 17 | 4 | 9.38 | 4 |
| **326** | 11.2 | 0 | 41.4 | 0 | 4.87 | 0 | 21.6 | 0 | 9.16 | 4 |
| **327** | 9.8 | 0 | -- | -- | | | -- | -- | | |
| **328** | 7.24 | 4 | 37 | 0 | 4.63 | 0 | 15.6 | 3 | 10.1 | 1 |
| **330** | 7.7 | 4 | -- | -- | 3.84 | 4 | -- | -- | 9.41 | 4 |
| **356** | 7.49 | 4 | 21.7 | 4 | 3.91 | 4 | -- | -- | 9.54 | 4 |
| **379** | 8.17 | 2 | 20 | 4 | | | -- | -- | | |
| **386** | | | 49.5 | 0 | 3.6 | 2 | -- | -- | 8.81 | 2 |
| **390** | 7.63 | 4 | 24 | 3 | 4.02 | 3 | 17.9 | 3 | 10.2 | 1 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 = | Manganese (Mn) | | Molybdenum (Mo) | | Sodium (Na) | | Nickel (Ni) | | Lead (Pb) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 495 µg/L | | 7.22 µg/L | | 36.5 mg/L | | 5.38 µg/L | | 4.59 µg/L | |
| F-pseudosigma = | 24.7 (24.8) | | 0.434 | | 0.96 (1.83) | | 0.445 | | 0.385 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 498.8 | 4 | 7.336 | 4 | 36 | 4 | 6.689 | 0 | 4.28 | 3 |
| **5** | 511 | 3 | <10.0 | NR | 37.1 | 4 | <10.0 | NR | 4.42 | 4 |
| **7** | 482 | 3 | 5.96 | 0 | 36 | 4 | 5.3 | 4 | 4.33 | 3 |
| **8** | 477 | 3 | 7.2 | 4 | 35.6 | 4 | 5.5 | 4 | 4.4 | 4 |
| **10** | 467 | 2 | -- | -- | | | -- | -- | 4 | 1 |
| **12** | 482 | 3 | 8 | 1 | 35.4 | 3 | 4.9 | 2 | 6 | 0 |
| **16** | 478 | 3 | 7 | 4 | 35 | 3 | 4.9 | 2 | 4.7 | 4 |
| **18** | 465 | 2 | -- | -- | 33.4 | 1 | <5 | NR | 7.65 | 0 |
| **21** | | | -- | -- | | | -- | -- | | |
| **23** | 485 | 4 | 9.87 | 0 | 36.6 | 4 | 5.08 | 3 | 55 | 0 |
| **24** | 521 | 2 | <17 | NR | 35.1 | 3 | <16 | NR | <43 | NR |
| **25** | 481.7 | 3 | -- | -- | 36.49 | 4 | 9.9 | 0 | < 20 | NR |
| **30** | 560 | 0 | -- | -- | 38 | 3 | -- | -- | | |
| **32** | 515 | 3 | 6.8 | 3 | 36.2 | 4 | 6.5 | 0 | 4.55 | 4 |
| **33** | 631 | 0 | -- | -- | 31.93 | 0 | -- | -- | | |
| **42** | 0.499 | 0 | 6.76 | 2 | 34.9 | 3 | 4.93 | 3 | 3.48 | 0 |
| **45** | 496 | 4 | 6.84 | 3 | 36.8 | 4 | 4.91 | 2 | 4.3 | 3 |
| **46** | 502 | 4 | -- | -- | 36.7 | 4 | <50 | NR | 4.92 | 3 |
| **50** | 470 | 2 | 6.88 | 3 | 36.5 | 4 | 5.65 | 3 | 4.68 | 4 |
| **59** | 455 | 1 | 6.44 | 1 | 36.7 | 4 | 5.51 | 4 | 4.43 | 4 |
| **64** | | | -- | -- | 37 | 4 | -- | -- | | |
| **70** | 516 | 3 | 7.4 | 4 | 36 | 4 | 6.6 | 0 | 4.4 | 4 |
| **76** | | | 7.377 | 4 | 37.43 | 4 | 5.188 | 4 | 4.843 | 3 |
| **86** | 492 | 4 | -- | -- | 36.5 | 4 | -- | -- | | |
| **89** | | | -- | -- | | | -- | -- | 4.24 | 3 |
| **97** | 484 | 4 | 4.71 | 0 | | | 5.84 | 2 | 3.91 | 1 |
| **100** | 516 | 3 | <25 | NR | 38.3 | 3 | <15 | NR | 4.49 | 4 |
| **105** | 541 | 1 | 8 | 1 | 39.7 | 1 | <50 | NR | 4.8 | 3 |
| **110** | | | -- | -- | 64.36 | 0 | -- | -- | | |
| **113** | 486 | 4 | 6.1 | 0 | 36.8 | 4 | 3.3 | 0 | 4.9 | 3 |
| **134** | 500 | 4 | 7 | 4 | 35.7 | 4 | 5.4 | 4 | 4.4 | 4 |
| **138** | 463 | 2 | 5.52 | 0 | 37.2 | 4 | 5.42 | 4 | 4.38 | 3 |
| **142** | 503 | 4 | 6.97 | 3 | 37.3 | 4 | 5.4 | 4 | 3.6 | 0 |
| **146** | 526 | 2 | 7.13 | 4 | 40.8 | 0 | 5.15 | 4 | 6.3 | 0 |
| **147** | | | -- | -- | | | -- | -- | 4.72 | 4 |
| **149** | 520 | 2 | 7 | 4 | 37 | 4 | 5 | 3 | 4 | 1 |
| **180** | 429 | 0 | 7.72 | 2 | 35.9 | 4 | 5.01 | 3 | 4.43 | 4 |
| **183** | | | 7.25 | 4 | | | 5.35 | 4 | 3.11 | 0 |
| **190** | 517 | 3 | -- | -- | 36.5 | 4 | 5.47 | 4 | 4.4 | 4 |
| **193** | | | -- | -- | 34.3 | 2 | <12.5 | NR | 5.4 | 0 |
| **212** | 486 | 4 | 6.93 | 3 | 36.1 | 4 | 4.73 | 2 | 4.77 | 4 |
| **219** | 489 | 4 | 8.3 | 0 | 36.5 | 4 | 5.4 | 4 | 4.1 | 2 |
| **220** | 481 | 3 | -- | -- | 34.59 | 2 | -- | -- | | |
| **227** | | | -- | -- | | | -- | -- | <4.70 | NR |
| **230** | 504 | 4 | 7.4 | 4 | 37 | 4 | 4.1 | 0 | 4.7 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Manganese (Mn)** | | **Molybdenum (Mo)** | | **Sodium (Na)** | | **Nickel (Ni)** | | **Lead (Pb)** | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 495 µg/L | | 7.22 µg/L | | 36.5 mg/L | | 5.38 µg/L | | 4.59 µg/L | |
| F-pseudosigma = | 24.7 (24.8) | | 0.434 | | 0.96 (1.83) | | 0.445 | | 0.385 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **234** | 498 | 4 | 6.07 | 0 | 36.7 | 4 | 5.51 | 4 | 4.59 | 4 |
| **235** | 471 | 3 | 7.32 | 4 | 34.9 | 3 | 5.78 | 3 | 4.92 | 3 |
| **247** | 500 | 4 | <40 | NR | 35.8 | 4 | <50 | NR | <40 | NR |
| **256** | 446 | 1 | -- | -- | | | 4.1 | 0 | 5.09 | 2 |
| **259** | 508 | 3 | 7.24 | 4 | 36.7 | 4 | 4.95 | 3 | 4.9 | 3 |
| **265** | 485 | 4 | 7.5 | 3 | 35.5 | 3 | 5 | 3 | 4.4 | 4 |
| **273** | 531 | 2 | -- | -- | 35.75 | 4 | -- | -- | | |
| **274** | | | -- | -- | 40.96 | 0 | -- | -- | | |
| **277** | | | -- | -- | 36.2 | 4 | 5.34 | 4 | 5.59 | 0 |
| **279** | | | -- | -- | 36.65 | 4 | -- | -- | | |
| **304** | 485 | 4 | 7.2 | 4 | | | 5.55 | 4 | 4.95 | 3 |
| **307** | 484 | 4 | -- | -- | | | 5.5 | 4 | 5.31 | 1 |
| **323** | 498 | 4 | 7.5 | 3 | 36.2 | 4 | 4.9 | 2 | 4.9 | 3 |
| **326** | 498.7 | 4 | -- | -- | 36.7 | 4 | 5.3 | 4 | 4.4 | 4 |
| **327** | | | -- | -- | | | -- | -- | | |
| **328** | 541 | 1 | 9.24 | 0 | 40.4 | 0 | 5.73 | 3 | 4.61 | 4 |
| **330** | 495 | 4 | 7.3 | 4 | 37.9 | 3 | 6.29 | 0 | 4.61 | 4 |
| **356** | 516 | 3 | 7.33 | 4 | 37.6 | 3 | 5.6 | 4 | 5.5 | 0 |
| **379** | 489 | 4 | -- | -- | | | 6.46 | 0 | 3.66 | 0 |
| **386** | 448 | 1 | -- | -- | 33.3 | 1 | -- | -- | | |
| **390** | 517 | 3 | 7.49 | 3 | 35.5 | 3 | 5.1 | 3 | 4.58 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 = | Antimony (Sb) | | Selenium (Se) | | Silica ($SiO_2$) | | Strontium (Sr) | | Thallium (Tl) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 5.20 µg/L | | 2.47 µg/L | | 11.1 mg/L | | 279 µg/L | | 5.94 µg/L | |
| F-pseudosigma = | 0.356 | | 0.452 | | 0.41 (0.56) | | 8.2 (14.0) | | 0.326 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 5.013 | 3 | 2.116 | 3 | 10.9 | 4 | 276.9 | 4 | 5.946 | 4 |
| **5** | <20.0 | NR | 1.51 | 0 | 11.4 | 3 | 279 | 4 | | |
| **7** | 5.29 | 4 | 2.1 | 3 | 10.03 | 1 | 278 | 4 | 5.46 | 2 |
| **8** | 4.5 | 1 | 2.2 | 3 | 10.6 | 3 | 274 | 4 | 5.7 | 3 |
| **10** | | | 2 | 2 | | | -- | -- | | |
| **12** | | | -- | -- | | | -- | -- | | |
| **16** | 5.2 | 4 | 6.1 | 0 | | | 280 | 4 | 5.8 | 4 |
| **18** | 5.92 | 0 | 1.99 | 2 | | | 255 | 1 | 9.66 | 0 |
| **21** | | | -- | -- | | | -- | -- | | |
| **23** | 220 | 0 | 1.19 | 0 | | | -- | -- | 110 | 0 |
| **24** | | | -- | -- | 11.4 | 3 | 282 | 4 | | |
| **25** | < 50 | NR | < 16 | NR | 11.57 | 3 | 285.8 | 4 | < 51 | NR |
| **30** | | | -- | -- | 12 | 1 | -- | -- | | |
| **32** | 4.9 | 3 | 3.58 | 0 | 11.5 | 3 | 276 | 4 | 5.6 | 2 |
| **33** | | | -- | -- | 12.06 | 1 | 252.15 | 1 | | |
| **42** | 4.96 | 3 | 2.7 | 4 | 10.3 | 2 | 301 | 1 | 6.02 | 4 |
| **45** | 4.6 | 1 | 2.17 | 3 | 10.6 | 3 | -- | -- | 5.72 | 3 |
| **46** | | | -- | -- | | | -- | -- | | |
| **50** | 5.08 | 4 | 2.47 | 4 | 10.7 | 3 | 270 | 3 | 5.75 | 3 |
| **59** | 5.41 | 3 | 2.73 | 3 | | | 280 | 4 | 5.95 | 4 |
| **64** | | | -- | -- | 10.9 | 4 | -- | -- | | |
| **70** | 6.1 | 0 | 2.6 | 4 | 11.2 | 4 | 278 | 4 | 5.6 | 2 |
| **76** | 5.029 | 4 | -- | -- | | | 273.8 | 4 | 6.105 | 4 |
| **86** | | | -- | -- | | | 278 | 4 | | |
| **89** | | | -- | -- | | | -- | -- | | |
| **97** | 4.26 | 0 | <1.78 | NR | | | 284 | 4 | 6.25 | 3 |
| **100** | 5.05 | 4 | 2.69 | 4 | 12.8 | 0 | 287 | 3 | 4.43 | 0 |
| **105** | 5.4 | 3 | <7 | NR | 11.107 | 4 | 285 | 4 | 6 | 4 |
| **110** | | | -- | -- | 10.98 | 4 | -- | -- | | |
| **113** | | | -- | -- | | | 268 | 3 | 4.6 | 0 |
| **134** | 4.86 | 3 | 2.63 | 4 | 10.94 | 4 | 275.9 | 4 | 6.12 | 3 |
| **138** | 5.38 | 4 | 2.47 | 4 | | | 274 | 4 | 6.16 | 3 |
| **142** | 5.51 | 3 | 2.63 | 4 | 11.5 | 3 | 281 | 4 | 5.8 | 4 |
| **146** | 5.9 | 1 | <10.0 | NR | | | -- | -- | 5.9 | 4 |
| **147** | | | -- | -- | | | 273 | 4 | | |
| **149** | 4.7 | 2 | <3 | NR | | | -- | -- | 5 | 0 |
| **180** | 5.56 | 2 | 2.47 | 4 | | | -- | -- | 5.65 | 3 |
| **183** | | | -- | -- | | | -- | -- | | |
| **190** | | | 2.07 | 3 | 11 | 4 | 285 | 4 | | |
| **193** | | | -- | -- | | | -- | -- | | |
| **212** | 5.23 | 4 | 2.32 | 4 | 11.3 | 4 | 305 | 1 | 6.34 | 2 |
| **219** | 5.48 | 3 | 2.2 | 3 | 11.29 | 4 | 279 | 4 | 5.2 | 0 |
| **220** | | | -- | -- | | | -- | -- | | |
| **227** | | | -- | -- | | | -- | -- | | |
| **230** | | | 2.6 | 4 | 12 | 1 | 294 | 2 | 6.3 | 2 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Antimony (Sb)** | | **Selenium (Se)** | | **Silica ($SiO_2$)** | | **Strontium (Sr)** | | **Thallium (Tl)** | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 5.20 µg/L | | 2.47 µg/L | | 11.1 mg/L | | 279 µg/L | | 5.94 µg/L | |
| F-pseudosigma = | 0.356 | | 0.452 | | 0.41 (0.56) | | 8.2 (14.0) | | 0.326 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **234** | 5.14 | 4 | <5.0 | NR | 11.3 | 4 | 276 | 4 | 6.24 | 3 |
| **235** | 5.66 | 2 | 1.99 | 2 | 12.4 | 0 | 274 | 4 | 6.07 | 4 |
| **247** | <200 | NR | <100 | NR | | | 300 | 2 | <50 | NR |
| **256** | 4.69 | 2 | 1.92 | 2 | 10.7 | 3 | 267 | 3 | | |
| **259** | | | 1.98 | 2 | 11.2 | 4 | 288 | 3 | | |
| **265** | 5 | 3 | 2.3 | 4 | 10.3 | 2 | 268 | 3 | 5.8 | 4 |
| **273** | | | 32.1 | 0 | | | 290 | 3 | | |
| **274** | | | -- | -- | 3.95 | 0 | -- | -- | | |
| **277** | | | -- | -- | | | -- | -- | | |
| **279** | | | -- | -- | | | -- | -- | | |
| **304** | 5.13 | 4 | 2.52 | 4 | | | 280 | 4 | 5.86 | 4 |
| **307** | | | 3.28 | 1 | | | -- | -- | | |
| **323** | 5.3 | 4 | 2 | 2 | 10.9 | 4 | 278 | 4 | 6.14 | 3 |
| **326** | | | -- | -- | | | 284 | 4 | | |
| **327** | | | -- | -- | 11 | 4 | -- | -- | | |
| **328** | 5.5 | 3 | 2.45 | 4 | 11.1 | 4 | 244 | 0 | 5.94 | 4 |
| **330** | 5.05 | 4 | 2.97 | 2 | | | -- | -- | 5.92 | 4 |
| **356** | 5.26 | 4 | 2.96 | 2 | 10.9 | 4 | 291 | 3 | 7.2 | 0 |
| **379** | | | 3.71 | 0 | | | -- | -- | 9.42 | 0 |
| **386** | | | -- | -- | 22.5 | 0 | -- | -- | | |
| **390** | | | -- | -- | 11.36 | 4 | 291 | 3 | | |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Uranium (U)** | | **Vanadium (V)** | | **Zinc (Zn)** | |
|---|---|---|---|---|---|---|
| MPV = | 1.92 µg/L | | 4.31 µg/L | | 348 µg/L | |
| F-pseudosigma = | 0.087 (0.096) | | 0.245 | | 19.3 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating |
| **1** | 2.017 | 2 | 4.252 | 4 | 345.6 | 4 |
| **5** | | | 4.52 | 3 | 353 | 4 |
| **7** | 1.9 | 4 | <20 | NR | 337 | 3 |
| **8** | 1.87 | 4 | 4.04 | 2 | 293 | 0 |
| **10** | | | -- | -- | 353 | 4 |
| **12** | | | -- | -- | 330 | 3 |
| **16** | 2.3 | 0 | 4.5 | 3 | 333 | 3 |
| **18** | | | <5 | NR | 307 | 0 |
| **21** | | | -- | -- | | |
| **23** | | | -- | -- | 326 | 2 |
| **24** | | | <18 | NR | 355 | 4 |
| **25** | | | < 19 | NR | 361.2 | 3 |
| **30** | | | -- | -- | | |
| **32** | 1.93 | 4 | 4.25 | 4 | 360 | 3 |
| **33** | | | -- | -- | | |
| **42** | 2.06 | 1 | 4.15 | 3 | 348 | 4 |
| **45** | 1.77 | 1 | 4.1 | 3 | 330 | 3 |
| **46** | | | -- | -- | 344 | 4 |
| **50** | | | 4.31 | 4 | 324 | 2 |
| **59** | | | 4.19 | 4 | 343 | 4 |
| **64** | | | -- | -- | | |
| **70** | 1.9 | 4 | 4.5 | 3 | 359 | 3 |
| **76** | | | 4.3 | 4 | | |
| **86** | | | 3.94 | 2 | 351 | 4 |
| **89** | | | -- | -- | 371 | 2 |
| **97** | | | 3.96 | 2 | 348 | 4 |
| **100** | | | <5 | NR | 351 | 4 |
| **105** | | | <20 | NR | 395 | 0 |
| **110** | | | -- | -- | | |
| **113** | | | -- | -- | 344 | 4 |
| **134** | | | 4.2 | 4 | 359 | 3 |
| **138** | | | 4.05 | 2 | 333 | 3 |
| **142** | 1.9 | 4 | 4.07 | 3 | 354 | 4 |
| **146** | | | 4.2 | 4 | 360 | 3 |
| **147** | | | -- | -- | 341 | 4 |
| **149** | 1.8 | 2 | 4.3 | 4 | 370 | 2 |
| **180** | | | -- | -- | 321 | 2 |
| **183** | | | -- | -- | | |
| **190** | | | -- | -- | 355 | 4 |
| **193** | | | -- | -- | | |
| **212** | 1.9 | 4 | 4.35 | 4 | 357 | 4 |
| **219** | 1.73 | 1 | 4.3 | 4 | 332 | 3 |
| **220** | | | 5.6 | 0 | 332 | 3 |
| **227** | | | -- | -- | 362 | 3 |
| **230** | 2 | 3 | 4.8 | 0 | 347 | 4 |

**Table 5.** ***Laboratory performance ratings for standard reference sample T-173 (trace constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Uranium (U)** | | **Vanadium (V)** | | **Zinc (Zn)** | |
|---|---|---|---|---|---|---|
| MPV = | 1.92 µg/L | | 4.31 µg/L | | 348 µg/L | |
| F-pseudosigma = | 0.087 (0.096) | | 0.245 | | 19.3 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating |
| **234** | | | 4.37 | 4 | 340 | 4 |
| **235** | 2.02 | 2 | 4.5 | 3 | 358 | 3 |
| **247** | | | <10 | NR | 350 | 4 |
| **256** | | | 3.98 | 2 | 320 | 2 |
| **259** | | | -- | -- | 358 | 3 |
| **265** | 1.9 | 4 | 4.4 | 4 | 345 | 4 |
| **273** | | | -- | -- | 380 | 1 |
| **274** | | | -- | -- | | |
| **277** | | | -- | -- | 358 | 3 |
| **279** | | | -- | -- | | |
| **304** | 2 | 3 | 4.45 | 3 | 334 | 3 |
| **307** | | | -- | -- | 380 | 1 |
| **323** | 2.08 | 1 | 5.1 | 0 | 340 | 4 |
| **326** | | | -- | -- | 343.7 | 4 |
| **327** | | | -- | -- | | |
| **328** | 1.97 | 3 | 4.47 | 3 | 384 | 1 |
| **330** | | | -- | -- | 372 | 2 |
| **356** | | | 4.48 | 3 | 328 | 2 |
| **379** | | | 4.72 | 1 | 331 | 3 |
| **386** | | | -- | -- | | |
| **390** | | | 4.55 | 3 | 376 | 2 |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents)***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 (B)** | | **Calcium (Ca)** | | **Chloride (Cl)** | | **Fluoride (F)** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MPV = | 81.0 mg/L | | 150 µg/L | | 31.3 mg/L | | 36.4 mg/L | | 0.690 mg/L | |
| | | | F-pseudosigma = | 2.74 (4.05) | | 7.0 (7.5) | | 1.26 (1.57) | | 1.33 (1.82) | | 0.0597 | |
| **Lab** | OLR | V/16 | | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 3.3 | 15 | | 82.27 | 4 | 165.1 | 0 | 30.9 | 4 | 36.81 | 4 | 0.719 | 4 |
| **4** | 3.7 | 3 | | 81.6 | 4 | -- | -- | | | 36.5 | 4 | | |
| **5** | 3.3 | 16 | | 86 | 2 | 154 | 3 | 31.5 | 4 | 36.33 | 4 | 0.62 | 2 |
| **8** | 2.7 | 14 | | 81 | 4 | 177 | 0 | 31.9 | 4 | 42.3 | 0 | | |
| **10** | 3.6 | 12 | | 82.9 | 4 | -- | -- | 32.3 | 3 | 36.3 | 4 | 0.76 | 2 |
| **12** | 2.7 | 9 | | 83 | 4 | -- | -- | 32.3 | 3 | -- | -- | | |
| **16** | 2.7 | 15 | | 67 | 0 | 59 | 0 | 29.5 | 2 | 35.2 | 3 | 0.61 | 2 |
| **18** | 2.2 | 14 | | 78.3 | 3 | 151 | 4 | 31.2 | 4 | 35.3 | 3 | 0.53 | 0 |
| **23** | 3.8 | 6 | | 85 | 3 | -- | -- | 32 | 4 | -- | -- | | |
| **24** | 3.8 | 13 | | 80.88 | 4 | 147 | 4 | 30.5 | 3 | 36.6 | 4 | 0.704 | 4 |
| **25** | 2.7 | 15 | | 83 | 4 | 148.4 | 4 | 35.09 | 0 | 36.2 | 4 | 0.64 | 3 |
| **30** | 3.4 | 9 | | | | -- | -- | 31 | 4 | 37.2 | 4 | 0.74 | 3 |
| **32** | 3.4 | 16 | | 80.2 | 4 | 143 | 3 | 32 | 4 | 34.9 | 3 | 0.688 | 4 |
| **33** | 1.7 | 13 | | 79.7 | 4 | -- | -- | 29.85 | 3 | 39.92 | 1 | 0.35 | 0 |
| **38** | 3.4 | 9 | | 41.27 | 0 | -- | -- | 31.3 | 4 | -- | -- | | |
| **42** | 2.6 | 15 | | 84.4 | 3 | 140 | 2 | 31 | 4 | 34.7 | 3 | 0.749 | 3 |
| **45** | 2.7 | 15 | | 78.9 | 3 | 153 | 4 | 30.3 | 3 | 38.5 | 2 | 0.767 | 2 |
| **46** | 3.7 | 12 | | 78.4 | 3 | -- | -- | 31.3 | 4 | 37 | 4 | 0.693 | 4 |
| **50** | 3.1 | 13 | | 100 | 0 | 151 | 4 | 32.5 | 3 | 37.8 | 3 | 0.73 | 3 |
| **59** | 3.3 | 15 | | 84.3 | 3 | 33.3 | 0 | 30.3 | 3 | 36.6 | 4 | 0.7 | 4 |
| **64** | 3.6 | 10 | | | | -- | -- | 30.7 | 4 | 35.3 | 3 | | |
| **70** | 3.2 | 15 | | 77.7 | 3 | -- | -- | 32.4 | 3 | 35.4 | 3 | 0.79 | 1 |
| **76** | 3.8 | 10 | | | | 152.6 | 4 | 31.71 | 4 | 35.2 | 3 | | |
| **80** | 3.0 | 10 | | 106.7 | 0 | -- | -- | 30.3 | 3 | 37.8 | 3 | | |
| **86** | 3.7 | 9 | | | | 145 | 3 | 31.3 | 4 | -- | -- | | |
| **89** | 3.0 | 7 | | 82.9 | 4 | -- | -- | | | 36.3 | 4 | | |
| **91** | 3.8 | 4 | | 80.2 | 4 | -- | -- | | | 36.2 | 4 | | |
| **100** | 2.9 | 15 | | 75.1 | 2 | 148 | 4 | 32.6 | 3 | 36.9 | 4 | 0.75 | 3 |
| **102** | 2.3 | 11 | | | | -- | -- | 33.4 | 2 | 37.5 | 3 | 0.66 | 4 |
| **105** | 2.6 | 14 | | 83.2 | 3 | <200 | NR | 33.3 | 2 | 37.9 | 3 | 0.62 | 2 |
| **113** | 3.5 | 14 | | 86 | 2 | -- | -- | 31 | 4 | 36.5 | 4 | 0.67 | 4 |
| **118** | 3.5 | 4 | | 78.6 | 3 | -- | -- | | | -- | -- | | |
| **121** | 4.0 | 1 | | | | -- | -- | | | 36.38 | 4 | | |
| **134** | 3.9 | 16 | | 81.6 | 4 | 150 | 4 | 31.7 | 4 | 36.5 | 4 | 0.69 | 4 |
| **138** | 3.3 | 16 | | 83.8 | 3 | 137 | 1 | 31.5 | 4 | 37.1 | 4 | 0.755 | 2 |
| **142** | 3.1 | 16 | | 82 | 4 | 171 | 0 | 32.8 | 3 | 37 | 4 | 0.68 | 4 |
| **146** | 2.5 | 12 | | 81.1 | 4 | -- | -- | 32.4 | 3 | 37.5 | 3 | 0.546 | 0 |
| **149** | 3.6 | 8 | | | | -- | -- | 31 | 4 | 37.4 | 3 | 0.69 | 4 |
| **180** | 3.4 | 11 | | 81 | 4 | -- | -- | 31.3 | 4 | 37.8 | 3 | 0.587 | 1 |
| **183** | 2.8 | 8 | | 74 | 1 | -- | -- | | | 37.54 | 3 | 0.749 | 3 |
| **190** | 2.9 | 14 | | 80.4 | 4 | -- | -- | 28.5 | 1 | 35.1 | 3 | 0.69 | 4 |
| **193** | 2.8 | 9 | | 81.4 | 4 | -- | -- | 30 | 3 | -- | -- | | |
| **208** | 4.0 | 2 | | | | -- | -- | | | 36.2 | 4 | | |
| **212** | 2.6 | 16 | | 80.6 | 4 | 127 | 0 | 29.6 | 2 | 35.5 | 4 | 0.777 | 2 |
| **219** | 2.5 | 11 | | | | 143 | 3 | 30.4 | 3 | 35.18 | 3 | 0.844 | 0 |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 (B) | | Calcium (Ca) | | Chloride (Cl) | | Fluoride (F) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MPV = | 81.0 mg/L | | 150 µg/L | | 31.3 mg/L | | 36.4 mg/L | | 0.690 mg/L | |
| | | F-pseudosigma = | 2.74 (4.05) | | 7.0 (7.5) | | 1.26 (1.57) | | 1.33 (1.82) | | 0.0597 | |
| **Lab** | OLR | V/16 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **220** | 2.6 | 10 | 100.9 | 0 | 155 | 3 | 30.5 | 3 | 38.64 | 2 | 0.69 | 4 |
| **224** | 2.6 | 9 | 72 | 0 | -- | -- | 30.82 | 4 | -- | -- | | |
| **227** | 3.6 | 8 | 82.1 | 4 | -- | -- | 32.7 | 3 | 36.77 | 4 | | |
| **230** | 3.3 | 14 | 113 | 0 | 146 | 3 | 32 | 4 | 37 | 4 | 0.69 | 4 |
| **234** | 3.4 | 16 | 81 | 4 | 158 | 2 | 31.8 | 4 | 34.6 | 3 | 0.659 | 3 |
| **247** | 2.7 | 16 | 80 | 4 | 150 | 4 | 29.5 | 2 | 37.1 | 4 | 0.66 | 4 |
| **254** | 4.0 | 2 | | | -- | -- | | | 36 | 4 | | |
| **256** | 3.0 | 14 | 84.17 | 3 | -- | -- | 30.83 | 4 | 35.28 | 3 | 0.56 | 0 |
| **259** | 3.8 | 15 | 81 | 4 | 161 | 2 | 31.9 | 4 | 35.9 | 4 | 0.68 | 4 |
| **263** | 3.3 | 9 | 83.7 | 3 | -- | -- | 30.6 | 4 | 37.3 | 4 | 0.71 | 4 |
| **265** | 3.6 | 11 | | | 145 | 3 | 32.1 | 3 | 34.6 | 3 | 0.66 | 4 |
| **266** | 3.8 | 12 | 85 | 3 | -- | -- | 32.2 | 3 | 36.6 | 4 | 0.68 | 4 |
| **269** | 3.8 | 5 | 81 | 4 | -- | -- | | | 37 | 4 | 0.64 | 3 |
| **273** | 2.6 | 13 | 79.25 | 4 | -- | -- | 33.6 | 2 | 35.92 | 4 | 0.7 | 4 |
| **274** | 1.1 | 12 | 156.94 | 0 | -- | -- | 21.77 | 0 | 15.93 | 0 | 0.74 | 3 |
| **276** | 3.2 | 6 | 82.6 | 4 | -- | -- | | | 38.2 | 3 | | |
| **277** | 2.5 | 10 | | | -- | -- | 29.7 | 2 | 30.6 | 0 | 0.66 | 4 |
| **279** | 3.8 | 4 | | | -- | -- | 32.64 | 3 | -- | -- | | |
| **301** | 0.4 | 5 | | | -- | -- | 23.67 | 0 | 33.726 | 2 | | |
| **307** | 3.2 | 6 | 81.7 | 4 | -- | -- | | | 36 | 4 | | |
| **319** | 2.0 | 2 | | | 150 | 4 | | | 41 | 0 | | |
| **321** | 2.9 | 7 | 78 | 3 | -- | -- | | | 35.6 | 4 | | |
| **323** | 3.4 | 16 | 80 | 4 | 158 | 2 | 31.5 | 4 | 33.2 | 1 | 0.65 | 3 |
| **326** | 3.8 | 8 | | | 153.6 | 4 | 31.9 | 4 | 35.5 | 4 | | |
| **327** | 1.5 | 6 | | | <250 | NR | | | 39 | 2 | 0.94 | 0 |
| **328** | 2.3 | 16 | 80 | 4 | 150 | 4 | 32.7 | 3 | 35 | 3 | 0.81 | 0 |
| **330** | 3.2 | 5 | 81 | 4 | -- | -- | | | 35 | 3 | 0.74 | 3 |
| **333** | 3.6 | 5 | 79.5 | 4 | -- | -- | | | -- | -- | | |
| **341** | 3.1 | 14 | 69.8 | 0 | 163 | 1 | 30.2 | 3 | 36.8 | 4 | | |
| **356** | 3.7 | 6 | 83.2 | 3 | -- | -- | | | 36.7 | 4 | 0.632 | 3 |
| **366** | 3.5 | 11 | 79.3 | 4 | -- | -- | 32.8 | 3 | 39.1 | 2 | | |
| **374** | 4.0 | 1 | | | -- | -- | | | 36 | 4 | | |
| **377** | 3.7 | 16 | 83 | 4 | 151 | 4 | 29 | 2 | 37.6 | 3 | 0.7 | 4 |
| **379** | 2.3 | 12 | 78.3 | 3 | -- | -- | 31.7 | 4 | 36 | 4 | 0.7 | 4 |
| **383** | 3.0 | 6 | | | -- | -- | 31.7 | 4 | 34.8 | 3 | | |
| **386** | 2.8 | 13 | 80 | 4 | -- | -- | 29.2 | 2 | 36 | 4 | 0.666 | 4 |
| **388** | 3.8 | 4 | 78 | 3 | -- | -- | | | 36 | 4 | | |
| **389** | 2.3 | 3 | | | -- | -- | | | -- | -- | | |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 = | Potassium (K) | | Magnesium (Mg) | | Sodium (Na) | | pH | | Residue on Evaporation | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 4.37 mg/L | | 18.5 mg/L | | 25.1 mg/L | | 9.50 | | 260 mg/L | |
| F-pseudosigma = | 0.185 (0.219) | | 0.67 (0.93) | | 1.04 (1.26) | | 0.185 (0.475) | | 14.8 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 4.38 | 4 | 17.7 | 3 | 24.8 | 4 | 9.57 | 4 | 261.7 | 4 |
| **4** | | | -- | -- | | | -- | -- | | |
| **5** | 4.37 | 4 | 17.9 | 3 | 25.2 | 4 | 9.09 | 3 | 268 | 3 |
| **8** | 4.3 | 4 | 18.3 | 4 | 25.3 | 4 | 9.5 | 4 | 273 | 3 |
| **10** | 4.3 | 4 | 18.4 | 4 | 25.4 | 4 | 9.3 | 4 | 251 | 3 |
| **12** | 4.5 | 3 | 19 | 3 | 26.3 | 3 | 8.9 | 2 | | |
| **16** | 4.5 | 3 | 18 | 3 | 24.1 | 3 | 9.44 | 4 | 262 | 4 |
| **18** | 3.86 | 0 | 17.2 | 2 | 23.8 | 2 | -- | -- | 380 | 0 |
| **23** | 4.33 | 4 | 18.9 | 4 | 24.9 | 4 | 9.7 | 4 | | |
| **24** | 4.4 | 4 | 18.8 | 4 | 24.6 | 4 | 9.55 | 4 | | |
| **25** | 3.94 | 1 | 15.84 | 0 | 26.28 | 3 | 9.32 | 4 | 250 | 3 |
| **30** | | | 19 | 3 | 26 | 3 | 9.65 | 4 | | |
| **32** | 4.4 | 4 | 18.7 | 4 | 25.6 | 4 | 9.71 | 4 | 252 | 3 |
| **33** | 4.39 | 4 | 20.95 | 0 | 22.98 | 1 | 9.27 | 4 | | |
| **38** | 4.45 | 4 | 18.5 | 4 | 24.4 | 3 | 9.3 | 4 | | |
| **42** | 4.24 | 3 | 17.7 | 3 | 24.7 | 4 | 6.94 | 0 | | |
| **45** | 4.17 | 3 | 17.6 | 3 | 23.9 | 3 | 9.62 | 4 | 220 | 0 |
| **46** | 4.25 | 3 | 17.8 | 3 | 24.7 | 4 | 9.37 | 4 | 254 | 4 |
| **50** | 4.35 | 4 | 19 | 3 | 25.8 | 3 | 9.4 | 4 | 263 | 4 |
| **59** | 4.37 | 4 | 18.4 | 4 | 25.1 | 4 | 9.374 | 4 | 255 | 4 |
| **64** | 4.43 | 4 | 18.1 | 4 | 25.8 | 3 | 9.62 | 4 | | |
| **70** | 4.35 | 4 | 18.7 | 4 | 25.3 | 4 | 9.49 | 4 | 270 | 3 |
| **76** | 4.448 | 4 | -- | -- | 25.12 | 4 | -- | -- | | |
| **80** | 4.6 | 2 | 18.5 | 4 | 24.7 | 4 | 9.18 | 3 | 250 | 3 |
| **86** | 4.46 | 4 | 18.5 | 4 | 25.7 | 4 | 9.32 | 4 | | |
| **89** | | | -- | -- | | | 9.24 | 3 | 247 | 3 |
| **91** | | | -- | -- | | | 9.49 | 4 | | |
| **100** | 4.49 | 3 | 18.4 | 4 | 26.7 | 2 | 9.59 | 4 | 354 | 0 |
| **102** | 3.4 | 0 | 22.7 | 0 | 18.3 | 0 | -- | -- | | |
| **105** | 4.53 | 3 | 20.4 | 0 | 28.6 | 0 | 9.5 | 4 | 328 | 0 |
| **113** | 4.4 | 4 | 18.6 | 4 | 25.9 | 3 | 9.6 | 4 | 270 | 3 |
| **118** | | | -- | -- | | | 9.2 | 3 | 264 | 4 |
| **121** | | | -- | -- | | | -- | -- | | |
| **134** | 4.42 | 4 | 18.2 | 4 | 24.9 | 4 | 9.59 | 4 | 258 | 4 |
| **138** | 4.27 | 4 | 18.5 | 4 | 25.8 | 3 | 9.72 | 4 | 254 | 4 |
| **142** | 4.43 | 4 | 19.2 | 3 | 26.3 | 3 | 9.58 | 4 | 231 | 1 |
| **146** | 4.67 | 2 | 19.2 | 3 | 27 | 2 | 9.71 | 4 | 240 | 2 |
| **149** | 4.2 | 3 | 19 | 3 | 24.6 | 4 | -- | -- | | |
| **180** | 4.18 | 3 | 18.1 | 4 | 24.8 | 4 | 9.5 | 4 | | |
| **183** | | | -- | -- | | | 9.62 | 4 | 286 | 1 |
| **190** | 5.3 | 0 | 19.3 | 3 | 28.2 | 0 | 9.41 | 4 | 261 | 4 |
| **193** | 4.16 | 3 | 17.6 | 3 | 23.9 | 3 | 9.66 | 4 | | |
| **208** | | | -- | -- | | | -- | -- | | |
| **212** | 4.03 | 1 | 17.9 | 3 | 24.3 | 3 | 9.83 | 3 | 245 | 2 |
| **219** | 4.2 | 3 | 17.7 | 3 | 24.3 | 3 | -- | -- | | |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 = | Potassium (K) | | Magnesium (Mg) | | Sodium (Na) | | pH | | Residue on Evaporation | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 4.37 mg/L | | 18.5 mg/L | | 25.1 mg/L | | 9.50 | | 260 mg/L | |
| F-pseudosigma = | 0.185 (0.219) | | 0.67 (0.93) | | 1.04 (1.26) | | 0.185 (0.475) | | 14.8 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **220** | 4.1 | 2 | 17.98 | 3 | 24.1 | 3 | -- | -- | | |
| **224** | 4.0117 | 1 | 18.07 | 4 | 23.26 | 2 | 9.46 | 4 | 263 | 4 |
| **227** | | | 19 | 3 | | | 9.51 | 4 | 274 | 3 |
| **230** | 4.53 | 3 | 18.9 | 4 | 26 | 3 | 9.5 | 4 | | |
| **234** | 4.45 | 4 | 18.6 | 4 | 24.8 | 4 | 9.71 | 4 | 248 | 3 |
| **247** | 3.81 | 0 | 16.7 | 1 | 23.6 | 2 | 9.5 | 4 | 273 | 3 |
| **254** | | | -- | -- | | | -- | -- | | |
| **256** | 4.13 | 2 | 17.92 | 3 | 23.23 | 2 | 9.5 | 4 | 258.03 | 4 |
| **259** | 4.33 | 4 | 18.8 | 4 | 25.7 | 4 | 9.35 | 4 | 259 | 4 |
| **263** | | | 18.77 | 4 | | | 9.55 | 4 | 198 | 0 |
| **265** | 4.3 | 4 | 18.2 | 4 | 25.2 | 4 | -- | -- | | |
| **266** | 4.43 | 4 | 18.6 | 4 | 25.8 | 3 | 9.56 | 4 | 266 | 4 |
| **269** | | | -- | -- | | | 9.62 | 4 | | |
| **273** | 4.7 | 1 | 20.3 | 1 | 26 | 3 | 9.57 | 4 | 262 | 4 |
| **274** | 4.92 | 0 | 24.71 | 0 | 31.33 | 0 | 9.32 | 4 | | |
| **276** | | | -- | -- | | | 9.55 | 4 | 297 | 0 |
| **277** | 4.77 | 1 | 18.9 | 4 | 25.8 | 3 | 9.6 | 4 | 248 | 3 |
| **279** | 4.3 | 4 | 18.2 | 4 | 25.62 | 4 | -- | -- | | |
| **301** | | | 1.399 | 0 | | | -- | -- | | |
| **307** | | | -- | -- | | | 9.63 | 4 | | |
| **319** | | | -- | -- | | | -- | -- | | |
| **321** | | | -- | -- | 23.2 | 1 | 9.47 | 4 | | |
| **323** | 4.27 | 4 | 18.3 | 4 | 25.1 | 4 | 9.7 | 4 | 248 | 3 |
| **326** | 4.18 | 3 | 18.63 | 4 | 26.14 | 3 | -- | -- | | |
| **327** | | | -- | -- | | | -- | -- | 127 | 0 |
| **328** | 4.96 | 0 | 19.7 | 2 | 28.5 | 0 | 9.04 | 3 | 240 | 2 |
| **330** | | | -- | -- | | | 9.3 | 4 | | |
| **333** | | | -- | -- | | | 9.51 | 4 | | |
| **341** | 4.4 | 4 | 18.9 | 4 | 25 | 4 | 9.45 | 4 | 284 | 1 |
| **356** | | | -- | -- | | | -- | -- | 267 | 4 |
| **366** | 4.38 | 4 | 18.4 | 4 | 24.9 | 4 | 9.09 | 3 | 260 | 4 |
| **374** | | | -- | -- | | | -- | -- | | |
| **377** | 4.26 | 4 | 18.5 | 4 | 25.5 | 4 | 9.57 | 4 | 274 | 3 |
| **379** | 17.5 | 0 | 26.1 | 0 | 5.2 | 0 | 9.35 | 4 | 211 | 0 |
| **383** | 4.2 | 3 | 18.4 | 4 | 25.3 | 4 | -- | -- | | |
| **386** | 4.01 | 1 | 17.2 | 2 | 23.2 | 1 | 9.45 | 4 | 262 | 4 |
| **388** | | | -- | -- | | | -- | -- | 258 | 4 |
| **389** | | | -- | -- | | | 9.93 | 3 | | |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 = | Silica ($SiO_2$) | | Sulfate ($SO_4$) | | Specific Conductance | | Strontium (Sr) | | Total Phosphorus as P | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 11.7 mg/L | | 56.2 mg/L | | 432 µS/cm | | 249 µg/L | | 0.056 mg/L | |
| F-pseudosigma = | 0.52 (0.59) | | 2.05 (2.81) | | 11.1 (21.6) | | 7.4 (12.5) | | 0.0089 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 11.4 | 3 | 55.09 | 4 | 408.8 | 2 | 252.3 | 4 | | |
| **4** | | | 58.7 | 3 | | | -- | -- | | |
| **5** | 11.7 | 4 | 52.74 | 2 | 430 | 4 | 244 | 4 | 0.053 | 4 |
| **8** | 11.5 | 4 | 53.6 | 3 | 392 | 1 | 256 | 3 | <0.5 | NR |
| **10** | 11.4 | 3 | 57.3 | 4 | 433 | 4 | -- | -- | | |
| **12** | | | 54 | 3 | 486 | 0 | -- | -- | 0.05 | 3 |
| **16** | | | 59.4 | 2 | 430 | 4 | 249 | 4 | 0.056 | 4 |
| **18** | 11.3 | 3 | 54.4 | 3 | 373 | 0 | 239 | 3 | | |
| **23** | | | -- | -- | | | -- | -- | | |
| **24** | 12.2 | 3 | 55.5 | 4 | 435 | 4 | 254 | 4 | | |
| **25** | 11.48 | 4 | 54.3 | 3 | 430 | 4 | 229.7 | 1 | 0.05 | 3 |
| **30** | 12 | 3 | 57.3 | 4 | | | -- | -- | 0.05 | 3 |
| **32** | 12.3 | 2 | 56.5 | 4 | 444 | 3 | 244 | 4 | 0.04 | 1 |
| **33** | 12.2 | 3 | 60.52 | 1 | 477.05 | 0 | 225.34 | 1 | 0.15 | 0 |
| **38** | 11.54 | 4 | -- | -- | 430.5 | 4 | -- | -- | 0.056 | 4 |
| **42** | 10.9 | 2 | 57.1 | 4 | 302 | 0 | 286 | 0 | 0.057 | 4 |
| **45** | 11.4 | 3 | 59.8 | 2 | 437 | 4 | -- | -- | 0.08 | 0 |
| **46** | | | 58.3 | 3 | 431 | 4 | -- | -- | 0.052 | 4 |
| **50** | 11.3 | 3 | 59.4 | 2 | 436 | 4 | -- | -- | | |
| **59** | 11.7 | 4 | 56.5 | 4 | 433 | 4 | 257 | 3 | | |
| **64** | 11.5 | 4 | 56.8 | 4 | 464 | 2 | -- | -- | 0.059 | 4 |
| **70** | 11.9 | 4 | 53.2 | 2 | 435 | 4 | 249 | 4 | 0.06 | 4 |
| **76** | | | 56.36 | 4 | 433 | 4 | 249.2 | 4 | 0.0539 | 4 |
| **80** | | | 54.9 | 4 | 434 | 4 | -- | -- | | |
| **86** | | | -- | -- | 452 | 3 | 242 | 3 | | |
| **89** | | | 54.3 | 3 | 334 | 0 | -- | -- | 0.0519 | 4 |
| **91** | | | -- | -- | 413 | 3 | -- | -- | | |
| **100** | 13.6 | 0 | 57.3 | 4 | 422 | 4 | 259 | 3 | | |
| **102** | 11.1 | 2 | 58 | 3 | 453 | 3 | 250 | 4 | 0.055 | 4 |
| **105** | 11.749 | 4 | 56.6 | 4 | 427 | 4 | 250 | 4 | 0.05 | 3 |
| **113** | 11.6 | 4 | 53.7 | 3 | 448 | 3 | 239 | 3 | 0.057 | 4 |
| **118** | | | -- | -- | 423 | 4 | -- | -- | | |
| **121** | | | -- | -- | | | -- | -- | | |
| **134** | 11.6 | 4 | 55.8 | 4 | 432 | 4 | 246.7 | 4 | 0.062 | 3 |
| **138** | 12.3 | 2 | 57.4 | 4 | 439 | 4 | 246 | 4 | 0.0566 | 4 |
| **142** | 12.3 | 2 | 55.8 | 4 | 442 | 4 | 250 | 4 | 0.047 | 2 |
| **146** | | | 57 | 4 | 380 | 0 | -- | -- | <0.10 | NR |
| **149** | | | 57.3 | 4 | | | -- | -- | | |
| **180** | | | 59.1 | 2 | 428 | 4 | -- | -- | 0.059 | 4 |
| **183** | | | 54.6 | 3 | 445 | 3 | -- | -- | 0.056 | 4 |
| **190** | 11.7 | 4 | 54.2 | 3 | 432 | 4 | 252 | 4 | 0.048 | 3 |
| **193** | 12.4 | 2 | -- | -- | 40.8 | 0 | -- | -- | 0.062 | 3 |
| **208** | | | 54.9 | 4 | | | -- | -- | | |
| **212** | 11.9 | 4 | 55.4 | 4 | 403 | 2 | 261 | 3 | 0.079 | 0 |
| **219** | 11.3 | 3 | 54.61 | 3 | | | 241 | 3 | <0.1 | NR |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 = | Silica ($SiO_2$) | | Sulfate ($SO_4$) | | Specific Conductance | | Strontium (Sr) | | Total Phosphorus as P | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 11.7 mg/L | | 56.2 mg/L | | 432 µS/cm | | 249 µg/L | | 0.056 mg/L | |
| F-pseudosigma = | 0.52 (0.59) | | 2.05 (2.81) | | 11.1 (21.6) | | 7.4 (12.5) | | 0.0089 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **220** | | | 58.95 | 3 | | | -- | -- | | |
| **224** | 5.784 | 0 | -- | -- | 427 | 4 | -- | -- | | |
| **227** | | | -- | -- | 432 | 4 | -- | -- | 0.052 | 4 |
| **230** | 12 | 3 | 56.8 | 4 | 424 | 4 | 258 | 3 | | |
| **234** | 11.5 | 4 | 54.7 | 3 | 424 | 4 | 249 | 4 | 0.07 | 1 |
| **247** | 12.8 | 1 | 56.8 | 4 | 435 | 4 | 260 | 3 | 0.05 | 3 |
| **254** | | | 56 | 4 | | | -- | -- | | |
| **256** | 11.7 | 4 | 55.05 | 4 | 451 | 3 | 250 | 4 | | |
| **259** | 12.1 | 3 | 56.9 | 4 | 432 | 4 | 253.7 | 4 | 0.059 | 4 |
| **263** | | | 57.7 | 3 | 435 | 4 | -- | -- | | |
| **265** | 11.5 | 4 | 57.2 | 4 | | | 242 | 3 | | |
| **266** | 11.9 | 4 | 57 | 4 | 427 | 4 | -- | -- | | |
| **269** | | | -- | -- | 433 | 4 | -- | -- | | |
| **273** | 12.98 | 0 | 54.47 | 3 | 443 | 4 | -- | -- | 0.14 | 0 |
| **274** | 4.82 | 0 | 53.23 | 2 | 420 | 3 | -- | -- | 0.072 | 1 |
| **276** | | | 56.07 | 4 | 430 | 4 | -- | -- | | |
| **277** | | | 58 | 3 | 396 | 1 | -- | -- | | |
| **279** | | | -- | -- | | | -- | -- | | |
| **301** | 6.02 | 0 | 9.246 | 0 | | | -- | -- | | |
| **307** | | | 54.4 | 3 | 420 | 3 | -- | -- | 0.072 | 1 |
| **319** | | | -- | -- | | | -- | -- | | |
| **321** | | | 57.1 | 4 | 475 | 1 | -- | -- | 0.061 | 3 |
| **323** | 11.6 | 4 | 55.4 | 4 | 430 | 4 | 249 | 4 | 0.064 | 3 |
| **326** | | | 55.8 | 4 | | | 250.5 | 4 | | |
| **327** | 11 | 2 | 52 | 2 | 444 | 3 | -- | -- | | |
| **328** | 11.9 | 4 | 52 | 2 | 429 | 4 | 239 | 3 | 0.04 | 1 |
| **330** | | | 53.3 | 2 | | | -- | -- | | |
| **333** | 12.3 | 2 | -- | -- | 440 | 4 | 246 | 4 | | |
| **341** | | | 56 | 4 | 437 | 4 | 234 | 2 | 0.053 | 4 |
| **356** | | | 57.1 | 4 | 438 | 4 | -- | -- | | |
| **366** | | | 58.8 | 3 | 441 | 4 | -- | -- | 0.048 | 3 |
| **374** | | | -- | -- | | | -- | -- | | |
| **377** | 11.3 | 3 | 56.8 | 4 | 440 | 4 | 246 | 4 | 0.056 | 4 |
| **379** | | | 58.4 | 3 | 436 | 4 | -- | -- | 0.045 | 2 |
| **383** | | | 20.4 | 0 | | | -- | -- | | |
| **386** | 24 | 0 | 57.6 | 4 | 434 | 4 | -- | -- | 0.062 | 3 |
| **388** | | | 55.9 | 4 | | | -- | -- | | |
| **389** | | | -- | -- | 360 | 0 | -- | -- | 0.06 | 4 |

**Table 6.** ***Laboratory performance ratings for standard reference sample M-166 (major constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µg/L, micrograms per liter; µS/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 criterion.]

| 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 (V)** | |
|---|---|---|
| MPV = | 17.2 µg/L | |
| F-pseudosigma = | 1.04 | |
| **Lab** | RV | Rating |
| **1** | 18.53 | 2 |
| **4** | | |
| **5** | 16.5 | 3 |
| **8** | 23 | 0 |
| **10** | | |
| **12** | | |
| **16** | 16.4 | 3 |
| **18** | 17 | 4 |
| **23** | | |
| **24** | <18 | NR |
| **25** | < 19 | NR |
| **30** | | |
| **32** | 17.6 | 4 |
| **33** | | |
| **38** | | |
| **42** | 17.6 | 4 |
| **45** | 17.1 | 4 |
| **46** | | |
| **50** | | |
| **59** | 18.9 | 1 |
| **64** | | |
| **70** | 15.4 | 1 |
| **76** | 17.85 | 3 |
| **80** | | |
| **86** | 17.1 | 4 |
| **89** | | |
| **91** | | |
| **100** | 17.9 | 3 |
| **102** | | |
| **105** | <20 | NR |
| **113** | | |
| **118** | | |
| **121** | | |
| **134** | 16.5 | 3 |
| **138** | 16 | 2 |
| **142** | 17.2 | 4 |
| **146** | 17.7 | 3 |
| **149** | 17.4 | 4 |
| **180** | | |
| **183** | | |
| **190** | | |
| **193** | | |
| **208** | | |
| **212** | 17.5 | 4 |
| **219** | 15.4 | 1 |

| **Analyte =** | **Vanadium (V)** | |
|---|---|---|
| MPV = | 17.2 µg/L | |
| F-pseudosigma = | 1.04 | |
| **Lab** | RV | Rating |
| **220** | 16.2 | 3 |
| **224** | | |
| **227** | | |
| **230** | 18 | 3 |
| **234** | 18 | 3 |
| **247** | 20 | 0 |
| **254** | | |
| **256** | 15.7 | 2 |
| **259** | | |
| **263** | | |
| **265** | 16.8 | 4 |
| **266** | | |
| **269** | | |
| **273** | | |
| **274** | | |
| **276** | | |
| **277** | | |
| **279** | | |
| **301** | | |
| **307** | | |
| **319** | | |
| **321** | | |
| **323** | 18 | 3 |
| **326** | | |
| **327** | | |
| **328** | 16 | 2 |
| **330** | | |
| **333** | | |
| **341** | 16.8 | 4 |
| **356** | | |
| **366** | | |
| **374** | | |
| **377** | 17.1 | 4 |
| **379** | | |
| **383** | | |
| **386** | | |
| **388** | | |
| **389** | | |

**Table 7.** ***Laboratory performance ratings for standard reference sample N-77 (nutrient constituents)***

[MPV, most probable value; Lab, laboratory identification 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) | |

| | | | Ammonia as N | | Ammonia + Organic N as N | | Nitrate as N | | Total Phosphorus as P | | Orthophosphate as P | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte = | | | | | | | | | | | | |
| MPV = | | | 0.073 mg/L | | 0.105 mg/L | | 0.067 mg/L | | 0.065 mg/L | | 0.060 mg/L | |
| F-pseudosigma = | | | 0.0074 | | 0.0419 | | 0.0059 | | 0.0048 | | 0.0038 | |
| **Lab** | OLR | V/5 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 3.6 | 5 | 0.072 | 4 | 0.096 | 4 | 0.063 | 3 | 0.068 | 3 | 0.061 | 4 |
| **5** | 1.2 | 5 | 0.11 | 0 | 0.22 | 0 | 0.061 | 2 | 0.074 | 1 | 0.063 | 3 |
| **8** | 2.0 | 4 | | | 0.07 | 3 | 0.055 | 0 | 0.07 | 3 | 0.055 | 2 |
| **10** | 3.4 | 5 | 0.07 | 4 | 0.08 | 3 | 0.071 | 3 | 0.066 | 4 | 0.063 | 3 |
| **16** | 2.8 | 5 | 0.08 | 3 | 0.072 | 3 | 0.073 | 2 | 0.07 | 3 | 0.058 | 3 |
| **21** | 4.0 | 5 | 0.0718 | 4 | 0.108 | 4 | 0.0647 | 4 | 0.0646 | 4 | 0.0594 | 4 |
| **23** | 3.3 | 4 | 0.07 | 4 | 0.136 | 3 | <0.10 | NR | 0.062 | 3 | 0.058 | 3 |
| **31** | 4.0 | 5 | 0.072 | 4 | 0.105 | 4 | 0.069 | 4 | 0.065 | 4 | 0.06 | 4 |
| **33** | 0.5 | 4 | 0.083 | 2 | -- | -- | 0.084 | 0 | 0.085 | 0 | 0.078 | 0 |
| **38** | 3.6 | 5 | 0.078 | 3 | 0.09 | 4 | 0.065 | 4 | 0.064 | 4 | 0.057 | 3 |
| **42** | 2.3 | 3 | | | -- | -- | 0.063 | 3 | 0.0567 | 1 | 0.058 | 3 |
| **45** | 1.3 | 3 | | | -- | -- | 0.092 | 0 | 0.062 | 3 | 0.067 | 1 |
| **46** | 3.5 | 4 | 0.07 | 4 | <0.4 | NR | 0.071 | 3 | 0.062 | 3 | 0.059 | 4 |
| **50** | 3.0 | 2 | 0.069 | 3 | -- | -- | | | -- | -- | 0.058 | 3 |
| **51** | 3.4 | 5 | 0.07 | 4 | 0.083 | 3 | 0.06 | 2 | 0.064 | 4 | 0.062 | 4 |
| **59** | 3.2 | 5 | 0.081 | 2 | 0.11 | 4 | 0.068 | 4 | 0.062 | 3 | 0.063 | 3 |
| **64** | 3.8 | 4 | 0.08 | 3 | -- | -- | 0.07 | 4 | 0.065 | 4 | 0.062 | 4 |
| **70** | 3.2 | 5 | 0.072 | 4 | 0.094 | 4 | 0.065 | 4 | 0.083 | 0 | 0.062 | 4 |
| **72** | 0.6 | 5 | 0.061 | 1 | 0.384 | 0 | 0.06 | 2 | 0.081 | 0 | 0.068 | 0 |
| **76** | 4.0 | 1 | 0.071 | 4 | -- | -- | | | -- | -- | | |
| **80** | 1.3 | 3 | 0.07 | 4 | -- | -- | 0.65 | 0 | -- | -- | 0.66 | 0 |
| **86** | 2.0 | 3 | 0.0826 | 2 | -- | -- | 0.0458 | 0 | 0.065 | 4 | | |
| **89** | 2.4 | 5 | 0.0552 | 0 | 0.132 | 3 | 0.063 | 3 | 0.0621 | 3 | 0.0577 | 3 |
| **90** | 2.7 | 3 | 0.021 | 0 | 0.084 | 4 | 0.07 | 4 | -- | -- | | |
| **91** | 2.0 | 3 | 0.047 | 0 | <0.10 | NR | 0.072 | 3 | 0.068 | 3 | | |
| **102** | 2.0 | 5 | 0.08 | 3 | 0.35 | 0 | 0.084 | 0 | 0.067 | 4 | 0.064 | 3 |
| **105** | 1.8 | 4 | 0.04 | 0 | <1.00 | NR | 0.07 | 4 | 0.058 | 1 | 0.055 | 2 |
| **110** | 3.5 | 2 | 0.08 | 3 | -- | -- | 0.068 | 4 | -- | -- | | |
| **113** | 2.8 | 5 | 0.062 | 1 | 0.07 | 3 | 0.067 | 4 | 0.069 | 3 | 0.064 | 3 |
| **118** | 3.4 | 5 | 0.076 | 4 | 0.082 | 3 | 0.071 | 3 | 0.068 | 3 | 0.06 | 4 |
| **134** | 2.8 | 4 | 0.068 | 3 | < 0.2 | NR | 0.062 | 3 | 0.073 | 1 | 0.06 | 4 |
| **138** | 3.8 | 5 | 0.074 | 4 | 0.087 | 4 | 0.066 | 4 | 0.063 | 4 | 0.058 | 3 |
| **142** | 3.4 | 5 | 0.0763 | 4 | 0.14 | 3 | 0.0706 | 3 | 0.069 | 3 | 0.061 | 4 |
| **146** | 1.3 | 4 | 0.0946 | 0 | 0.155 | 2 | 0.0958 | 0 | <0.10 | NR | 0.063 | 3 |
| **180** | 3.0 | 5 | 0.078 | 3 | 0.099 | 4 | 0.062 | 3 | 0.072 | 2 | 0.057 | 3 |
| **190** | 3.0 | 5 | 0.074 | 4 | 0.119 | 4 | 0.064 | 4 | 0.06 | 2 | 0.054 | 1 |
| **193** | 2.8 | 4 | 0.07 | 4 | 0.57 | 0 | 0.07 | 4 | 0.068 | 3 | | |
| **198** | 3.0 | 4 | 0.0778 | 3 | -- | -- | 0.0654 | 4 | 0.0678 | 3 | 0.0551 | 2 |
| **234** | 3.0 | 4 | 0.075 | 4 | -- | -- | 0.068 | 4 | 0.06 | 2 | 0.066 | 2 |
| **247** | 0.8 | 5 | 0.073 | 4 | 0.21 | 0 | 0.09 | 0 | 0.04 | 0 | 0.05 | 0 |
| **313** | 3.6 | 5 | 0.0751 | 4 | 0.134 | 3 | 0.0699 | 4 | 0.0644 | 4 | 0.0578 | 3 |
| **316** | 3.8 | 5 | 0.0766 | 4 | 0.083 | 3 | 0.0644 | 4 | 0.0666 | 4 | 0.0596 | 4 |
| **318** | 3.2 | 5 | 0.059 | 1 | 0.092 | 4 | 0.068 | 4 | 0.0656 | 4 | 0.0629 | 3 |
| **320** | 3.6 | 5 | 0.0739 | 4 | 0.1073 | 4 | 0.0637 | 3 | 0.0661 | 4 | 0.0624 | 3 |
| **321** | 2.5 | 4 | 0.08 | 3 | -- | -- | 0.06 | 2 | 0.071 | 2 | 0.063 | 3 |

**Table 7.** ***Laboratory performance ratings for standard reference sample N-77 (nutrient constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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) | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Analyte =** | **Ammonia as N** | | **Ammonia + Organic N as N** | | **Nitrate as N** | | **Total Phosphorus as P** | | **Orthophosphate as P** | |
| | | MPV = | 0.073 mg/L | | 0.105 mg/L | | 0.067 mg/L | | 0.065 mg/L | | 0.060 mg/L | |
| | | F-pseudosigma = | 0.0074 | | 0.0419 | | 0.0059 | | 0.0048 | | 0.0038 | |
| **Lab** | OLR | V/5 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **323** | 0.8 | 5 | 0.1 | 0 | 0.2 | 0 | 0.0673 | 4 | 0.08 | 0 | 0.072 | 0 |
| **327** | 3.0 | 2 | 0.08 | 3 | <0.20 | NR | | | 0.07 | 3 | | |
| **328** | 0.4 | 5 | 0.042 | 0 | 0.263 | 0 | 0.06 | 2 | 0.05 | 0 | 0.15 | 0 |
| **333** | 4.0 | 2 | 0.077 | 4 | -- | -- | 0.067 | 4 | -- | -- | | |
| **341** | 2.4 | 5 | 0.068 | 3 | 0.08 | 3 | 0.065 | 4 | 0.056 | 1 | 0.054 | 1 |
| **366** | 1.0 | 5 | 0.139 | 0 | 0.343 | 0 | 0.076 | 1 | 0.055 | 0 | 0.06 | 4 |
| **369** | 2.8 | 5 | 0.063 | 2 | 0.073 | 3 | 0.061 | 2 | 0.063 | 4 | 0.057 | 3 |
| **373** | 2.0 | 4 | 0.093 | 0 | <0.28 | NR | 0.078 | 1 | 0.068 | 3 | 0.061 | 4 |
| **377** | 2.6 | 5 | 0.065 | 2 | 0.14 | 3 | 0.071 | 3 | 0.068 | 3 | 0.056 | 2 |
| **378** | 3.8 | 5 | 0.0773 | 3 | 0.118 | 4 | 0.0642 | 4 | 0.066 | 4 | 0.0606 | 4 |
| **379** | 2.6 | 5 | 0.08 | 3 | 0.09 | 4 | 0.065 | 4 | 0.06 | 2 | 0.045 | 0 |
| **380** | 1.6 | 5 | 0.0808 | 3 | 0.0307 | 1 | 0.06 | 2 | 0.0586 | 2 | 0.254 | 0 |
| **381** | 4.0 | 3 | 0.072 | 4 | -- | -- | 0.065 | 4 | -- | -- | 0.062 | 4 |
| **383** | 4.0 | 2 | 0.07 | 4 | -- | -- | 0.07 | 4 | -- | -- | | |
| **386** | 3.2 | 5 | 0.064 | 2 | 0.102 | 4 | 0.059 | 2 | 0.065 | 4 | 0.062 | 4 |
| **389** | 2.5 | 4 | 0.07 | 4 | -- | -- | 0.08 | 0 | 0.06 | 2 | 0.06 | 4 |

**Table 8.** ***Laboratory performance ratings for standard reference sample N-78 (nutrient constituents)***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Ammonia as N** | | **Ammonia + Organic N as N** | | **Nitrate as N** | | **Total Phosphorus as P** | | **Orthophosphate as P** | |
| | | MPV = | 0.789 mg/L | | 0.939 mg/L | | 0.660 mg/L | | 0.640 mg/L | | 0.632 mg/L | |
| | | F-pseudosigma = | 0.0456 | | 0.1038 | | 0.0310 (0.0330) | | 0.0267 (0.0320) | | 0.0200 (0.0316) | |
| **Lab** | OLR | V/5 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 3.8 | 5 | 0.771 | 4 | 0.943 | 4 | 0.654 | 4 | 0.664 | 3 | 0.63 | 4 |
| **5** | 2.6 | 5 | 0.835 | 3 | 0.98 | 4 | 0.701 | 2 | 0.695 | 1 | 0.649 | 3 |
| **8** | 0.4 | 5 | 0.9 | 0 | 1.1 | 1 | 0.79 | 0 | 0.7 | 1 | 0.7 | 0 |
| **10** | 3.2 | 5 | 0.81 | 4 | 0.91 | 4 | 0.854 | 0 | 0.652 | 4 | 0.648 | 4 |
| **16** | 3.2 | 5 | 0.77 | 4 | 0.78 | 1 | 0.64 | 3 | 0.625 | 4 | 0.637 | 4 |
| **18** | 1.5 | 4 | 0.71 | 1 | 1.113 | 1 | 0.877 | 0 | -- | -- | 0.634 | 4 |
| **23** | 1.6 | 5 | 0.68 | 0 | 1.19 | 0 | 0.93 | 0 | 0.63 | 4 | 0.62 | 4 |
| **26** | 0.0 | 3 | 0.96 | 0 | -- | -- | 0.59 | 0 | -- | -- | 0.55 | 0 |
| **30** | 3.5 | 2 | | | -- | -- | 0.693 | 3 | -- | -- | 0.643 | 4 |
| **33** | 2.3 | 4 | 0.881 | 0 | -- | -- | 0.65 | 4 | 0.681 | 2 | 0.649 | 3 |
| **38** | 2.8 | 5 | 0.833 | 3 | 0.87 | 3 | 0.866 | 0 | 0.631 | 4 | 0.622 | 4 |
| **42** | 3.3 | 3 | | | -- | -- | 0.635 | 3 | 0.618 | 3 | 0.621 | 4 |
| **45** | 4.0 | 3 | | | -- | -- | 0.672 | 4 | 0.64 | 4 | 0.627 | 4 |
| **46** | 2.2 | 5 | 0.792 | 4 | 1.22 | 0 | 0.631 | 3 | 0.676 | 2 | 0.676 | 2 |
| **50** | 4.0 | 2 | 0.782 | 4 | -- | -- | | | -- | -- | 0.636 | 4 |
| **59** | 3.0 | 5 | 0.794 | 4 | 0.84 | 3 | 0.883 | 0 | 0.636 | 4 | 0.64 | 4 |
| **64** | 3.0 | 4 | 0.8 | 4 | -- | -- | 0.91 | 0 | 0.633 | 4 | 0.623 | 4 |
| **70** | 2.8 | 5 | 0.67 | 0 | 0.939 | 4 | 0.65 | 4 | 0.675 | 2 | 0.644 | 4 |
| **72** | 2.2 | 5 | 0.831 | 3 | 1.204 | 0 | 0.694 | 2 | 0.679 | 2 | 0.638 | 4 |
| **76** | 4.0 | 2 | 0.789 | 4 | -- | -- | 0.6615 | 4 | -- | -- | | |
| **80** | 2.0 | 3 | 0.76 | 3 | -- | -- | 0.78 | 0 | -- | -- | 0.66 | 3 |
| **86** | 2.3 | 4 | 0.792 | 4 | -- | -- | 0.844 | 0 | 0.647 | 4 | 0.581 | 1 |
| **89** | 2.2 | 5 | 0.627 | 0 | 0.93 | 4 | 0.873 | 0 | 0.621 | 3 | 0.644 | 4 |
| **90** | 2.0 | 3 | 0.721 | 2 | 0.941 | 4 | 0.886 | 0 | -- | -- | | |
| **91** | 0.8 | 4 | 0.687 | 0 | 0.703 | 0 | 0.883 | 0 | 0.668 | 3 | | |
| **102** | 3.2 | 5 | 0.72 | 1 | 1.03 | 3 | 0.65 | 4 | 0.633 | 4 | 0.64 | 4 |
| **105** | 3.0 | 5 | 0.73 | 2 | 1.09 | 2 | 0.64 | 3 | 0.632 | 4 | 0.628 | 4 |
| **113** | 4.0 | 5 | 0.806 | 4 | 0.91 | 4 | 0.649 | 4 | 0.634 | 4 | 0.625 | 4 |
| **118** | 3.8 | 5 | 0.799 | 4 | 0.93 | 4 | 0.691 | 3 | 0.631 | 4 | 0.628 | 4 |
| **134** | 3.8 | 5 | 0.785 | 4 | 0.894 | 4 | 0.68 | 3 | 0.64 | 4 | 0.625 | 4 |
| **138** | 4.0 | 5 | 0.811 | 4 | 0.932 | 4 | 0.66 | 4 | 0.65 | 4 | 0.634 | 4 |
| **142** | 2.0 | 5 | 0.712 | 1 | 1.001 | 3 | 0.869 | 0 | 0.642 | 4 | 0.669 | 2 |
| **146** | 1.8 | 5 | 0.821 | 3 | 0.952 | 4 | 0.878 | 0 | 0.544 | 0 | 0.665 | 2 |
| **180** | 3.2 | 5 | 0.822 | 3 | 0.883 | 3 | 0.675 | 4 | 0.612 | 3 | 0.651 | 3 |
| **183** | 3.5 | 2 | <1 | NR | -- | -- | <1 | NR | 0.638 | 4 | 0.615 | 3 |
| **190** | 4.0 | 5 | 0.785 | 4 | 0.966 | 4 | 0.651 | 4 | 0.642 | 4 | 0.623 | 4 |
| **193** | 2.5 | 4 | 0.78 | 4 | 0.94 | 4 | 0.87 | 0 | 0.673 | 2 | | |
| **198** | 2.8 | 4 | 0.857 | 2 | -- | -- | 0.714 | 1 | 0.628 | 4 | 0.616 | 4 |
| **205** | 0.0 | 2 | 0.952 | 0 | -- | -- | 0.784 | 0 | -- | -- | | |
| **208** | 2.0 | 2 | | | -- | -- | 0.66 | 4 | -- | -- | <0.5 | 0 |
| **212** | 0.8 | 5 | 0.67 | 0 | 0.69 | 0 | 0.86 | 0 | 0.65 | 4 | 0.54 | 0 |
| **220** | 2.8 | 5 | 0.747 | 3 | 0.792 | 2 | 0.67 | 4 | 0.699 | 1 | 0.62 | 4 |
| **227** | 3.4 | 5 | 0.76 | 3 | 0.92 | 4 | 0.642 | 3 | 0.632 | 4 | 0.65 | 3 |
| **234** | 2.0 | 4 | 0.79 | 4 | -- | -- | 0.661 | 4 | 0.75 | 0 | 0.713 | 0 |
| **247** | 2.8 | 5 | 0.785 | 4 | 1 | 3 | 0.64 | 3 | 0.93 | 0 | 0.64 | 4 |

**Table 8.** ***Laboratory performance ratings for standard reference sample N-78 (nutrient constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification 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 criterion.]

| 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 =** | **Ammonia as N** | | **Ammonia + Organic N as N** | | **Nitrate as N** | | **Total Phosphorus as P** | | **Orthophosphate as P** | |
| | | MPV = | 0.789 mg/L | | 0.939 mg/L | | 0.660 mg/L | | 0.640 mg/L | | 0.632 mg/L | |
| | | F-pseudosigma = | 0.0456 | | 0.1038 | | 0.0310 (0.0330) | | 0.0267 (0.0320) | | 0.0200 (0.0316) | |
| **Lab** | OLR | V/5 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **307** | 2.7 | 3 | 0.783 | 4 | -- | -- | 0.601 | 1 | 0.619 | 3 | | |
| **313** | 2.6 | 5 | 0.772 | 4 | 0.793 | 2 | 0.717 | 1 | 0.673 | 2 | 0.63 | 4 |
| **320** | 3.7 | 3 | 0.835 | 3 | 0.974 | 4 | 0.648 | 4 | -- | -- | | |
| **323** | 2.0 | 4 | 0.95 | 0 | -- | -- | 0.89 | 0 | 0.65 | 4 | 0.629 | 4 |
| **327** | 3.3 | 3 | 0.76 | 3 | 0.86 | 3 | | | 0.65 | 4 | | |
| **328** | 2.5 | 4 | 0.81 | 4 | 0.84 | 3 | | | 0.61 | 3 | 1.87 | 0 |
| **341** | 3.0 | 5 | 0.786 | 4 | 0.88 | 3 | 0.622 | 2 | 0.636 | 4 | 0.585 | 2 |
| **356** | 3.8 | 4 | 0.781 | 4 | -- | -- | 0.68 | 3 | 0.65 | 4 | 0.619 | 4 |
| **366** | 3.2 | 5 | 0.823 | 3 | 1.08 | 2 | 0.656 | 4 | 0.609 | 3 | 0.616 | 4 |
| **373** | 3.6 | 5 | 0.819 | 3 | 0.849 | 3 | 0.666 | 4 | 0.655 | 4 | 0.645 | 4 |
| **378** | 2.8 | 5 | 0.904 | 0 | 1.01 | 3 | 0.685 | 3 | 0.626 | 4 | 0.621 | 4 |
| **379** | 2.8 | 5 | 0.81 | 4 | 1.01 | 3 | 0.66 | 4 | 0.602 | 2 | 0.58 | 1 |
| **380** | 1.4 | 5 | 0.855 | 2 | 0.824 | 2 | 0.58 | 0 | 0.662 | 3 | 2.93 | 0 |
| **383** | 3.0 | 2 | 0.77 | 4 | -- | -- | 0.7 | 2 | -- | -- | | |
| **386** | 2.0 | 5 | 0.714 | 1 | 1.02 | 3 | 0.907 | 0 | 0.625 | 4 | 0.587 | 2 |
| **391** | 0.0 | 1 | | | -- | -- | | | 0.18 | 0 | | |

**Table 9.** ***Laboratory performance ratings for standard reference sample P-40 (low ionic-strength constituents)***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µS/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 criterion.]

| 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 =** | **Acidity** | | **Calcium (Ca)** | | **Chloride (Cl)** | | **Fluoride (F)** | | **Potassium (K)** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MPV = | inadequate data | | 0.728 mg/L | | 15.2 mg/L | | 0.127 mg/L | | 0.384 mg/L | |
| | | F-pseudosigma = | | | 0.0437 | | 0.52 (0.76) | | 0.0252 | | 0.0289 | |
| **Lab** | OLR | V/11 | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 2.8 | 9 | | | 0.666 | 2 | 14.41 | 2 | 0.154 | 2 | 0.393 | 4 |
| **2** | 3.5 | 8 | | | 0.742 | 4 | | | 0.12 | 4 | 0.42 | 2 |
| **5** | 2.7 | 9 | | | 0.725 | 4 | 15.43 | 4 | 0.16 | 2 | <1.00 | NR |
| **8** | 2.5 | 8 | <20 | NR | 0.78 | 2 | 15.4 | 4 | -- | -- | 0.4 | 3 |
| **23** | 3.1 | 9 | | | 0.7 | 3 | 15.3 | 4 | 0.117 | 4 | 0.4 | 3 |
| **25** | 2.0 | 8 | < 8 | NR | 0.807 | 1 | 15.2 | 4 | 0.24 | 0 | 0.325 | 0 |
| **33** | 2.3 | 10 | | | 0.745 | 4 | 18.05 | 0 | 0.25 | 0 | 0.35 | 2 |
| **38** | 3.4 | 7 | | | 0.75 | 4 | | | -- | -- | 0.4 | 3 |
| **45** | 3.4 | 10 | | | 0.711 | 4 | 15.4 | 4 | 0.133 | 4 | 0.348 | 2 |
| **46** | 3.3 | 9 | | | 0.729 | 4 | 14.8 | 3 | 0.101 | 2 | 0.403 | 3 |
| **59** | 3.2 | 6 | | | -- | -- | 15.2 | 4 | 0.13 | 4 | | |
| **64** | 3.1 | 9 | | | 0.72 | 4 | 16 | 2 | -- | -- | 0.38 | 4 |
| **86** | 3.8 | 5 | | | -- | -- | | | -- | -- | 0.384 | 4 |
| **89** | 2.0 | 6 | 2.3 | 3 | -- | -- | 15.6 | 3 | -- | -- | | |
| **105** | 2.2 | 9 | 10.6 | 3 | 0.797 | 1 | 15.4 | 4 | <0.20 | NR | <1.00 | NR |
| **110** | 3.3 | 8 | | | 0.756 | 3 | 14.9 | 4 | 0.124 | 4 | 0.357 | 3 |
| **113** | 3.6 | 8 | | | -- | -- | 15.2 | 4 | 0.1 | 2 | | |
| **134** | 3.9 | 10 | | | 0.724 | 4 | 15.1 | 4 | 0.13 | 4 | 0.374 | 4 |
| **138** | 3.6 | 10 | | | 0.747 | 4 | 15.2 | 4 | 0.154 | 2 | 0.381 | 4 |
| **180** | 3.0 | 9 | | | 0.704 | 3 | 15.9 | 3 | 0.113 | 3 | <0.45 | NR |
| **190** | 2.7 | 10 | | | 0.74 | 4 | 14.4 | 2 | 0.123 | 4 | 0.59 | 0 |
| **193** | 2.9 | 7 | | | 0.68 | 2 | | | -- | -- | 0.36 | 3 |
| **208** | 3.0 | 1 | | | -- | -- | 14.8 | 3 | -- | -- | | |
| **247** | 2.3 | 10 | 19 | 0 | 0.63 | 0 | 14.5 | 3 | 0.12 | 4 | 0.31 | 0 |
| **265** | 2.7 | 7 | | | 0.68 | 2 | 14 | 1 | 0.04 | 0 | 0.37 | 4 |
| **273** | 2.3 | 11 | 4.18 | 3 | 0.775 | 2 | 15.25 | 4 | 0.14 | 3 | 0.365 | 3 |
| **274** | 1.9 | 10 | 4 | 3 | 0.81 | 1 | 17.92 | 0 | <0.1 | NR | 0.39 | 4 |
| **277** | 2.8 | 5 | | | -- | -- | 15 | 4 | -- | -- | 0.424 | 2 |
| **279** | 3.0 | 4 | | | 0.72 | 4 | | | -- | -- | 0.3 | 0 |
| **301** | 1.8 | 5 | | | 0.727 | 4 | 14.388 | 2 | -- | -- | | |
| **321** | 3.0 | 6 | | | -- | -- | 16.2 | 2 | -- | -- | | |
| **323** | 3.4 | 9 | | | 0.77 | 3 | 14.5 | 3 | 0.12 | 4 | <0.50 | NR |
| **326** | 2.7 | 6 | | | 0.72 | 4 | 14.8 | 3 | -- | -- | 0.42 | 2 |
| **327** | 1.3 | 3 | | | -- | -- | 16 | 2 | 0.26 | 0 | | |
| **328** | 1.7 | 11 | 10 | 3 | 0.77 | 3 | 14 | 1 | 0.15 | 3 | 1.16 | 0 |
| **333** | 3.8 | 9 | | | 0.72 | 4 | 15.2 | 4 | -- | -- | 0.4 | 3 |
| **379** | 1.7 | 9 | | | 0.77 | 3 | 15.5 | 4 | 0.123 | 4 | 1.49 | 0 |
| **383** | 3.0 | 6 | | | 0.7 | 3 | 15.5 | 4 | -- | -- | 0.37 | 4 |

**Table 9.** ***Laboratory performance ratings for standard reference sample P-40 (low ionic-strength constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µS/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 criterion.]

| 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 = | Magnesium (Mg) | | Sodium (Na) | | pH | | Orthophosphate as P ($PO_4$-P) | | Sulfate ($SO_4$) | |
|---|---|---|---|---|---|---|---|---|---|---|
| MPV = | 1.62 mg/L | | 5.42 mg/L | | 4.48 | | 0.066 mg/L | | 0.890 mg/L | |
| F-pseudosigma = | 0.093 | | 0.297 | | 0.096 (0.224) | | 0.0082 | | 0.1297 | |
| **Lab** | RV | Rating | RV | Rating | RV | Rating | RV | Rating | RV | Rating |
| **1** | 1.56 | 3 | 5.3 | 4 | 4.95 | 0 | -- | -- | 0.878 | 4 |
| **2** | 1.622 | 4 | 5.676 | 3 | 4.434 | 4 | -- | -- | 0.923 | 4 |
| **5** | 1.55 | 3 | 5.48 | 4 | 4.05 | 1 | 0.072 | 3 | 1.19 | 0 |
| **8** | 1.8 | 1 | 5.8 | 2 | 4.4 | 4 | <0.3 | NR | 1.3 | 0 |
| **23** | 1.65 | 4 | 1.14 | 0 | 4.5 | 4 | 0.063 | 4 | <5.0 | NR |
| **25** | 1.57 | 3 | 5.69 | 3 | 4.33 | 3 | 0.058 | 2 | < 5.0 | NR |
| **33** | 1.604 | 4 | 5.091 | 2 | 4.46 | 4 | 0.16 | 0 | 0.85 | 4 |
| **38** | 1.79 | 1 | 5.44 | 4 | 4.4 | 4 | 0.065 | 4 | | |
| **45** | 1.58 | 4 | 5.41 | 4 | 4.4 | 4 | 0.065 | 4 | 1.13 | 1 |
| **46** | 1.55 | 3 | 5.41 | 4 | 4.6 | 3 | 0.068 | 4 | <15 | NR |
| **59** | | | -- | -- | 3.94 | 0 | 0.061 | 3 | 0.87 | 4 |
| **64** | 1.58 | 4 | 5.6 | 3 | 4.37 | 4 | 0.205 | 0 | 0.94 | 4 |
| **86** | 1.65 | 4 | 5.6 | 3 | 4.53 | 4 | -- | -- | | |
| **89** | | | -- | -- | 6.3 | 0 | 0.0652 | 4 | 1.07 | 2 |
| **105** | 1.75 | 2 | 5.82 | 2 | 4.5 | 4 | 0.048 | 0 | 1.47 | 0 |
| **110** | 1.574 | 4 | 5.08 | 2 | | | -- | -- | 0.865 | 4 |
| **113** | 1.6 | 4 | 5.4 | 4 | 4.42 | 4 | 0.067 | 4 | 0.8 | 3 |
| **134** | 1.62 | 4 | 5.53 | 4 | 4.48 | 4 | 0.062 | 3 | 0.88 | 4 |
| **138** | 1.66 | 4 | 5.83 | 2 | 4.5 | 4 | 0.0663 | 4 | 0.85 | 4 |
| **180** | 1.59 | 4 | 5.42 | 4 | 4.61 | 3 | 0.06 | 3 | 0.73 | 2 |
| **190** | 1.71 | 3 | 4.62 | 0 | 4.48 | 4 | 0.055 | 2 | 0.9 | 4 |
| **193** | 1.53 | 3 | 5.18 | 3 | 4.52 | 4 | -- | -- | 0.75 | 2 |
| **208** | | | -- | -- | | | -- | -- | <3 | NR |
| **247** | 1.46 | 1 | 5.27 | 4 | 4.41 | 4 | 0.06 | 3 | <1 | NR |
| **265** | 1.63 | 4 | 5.3 | 4 | | | -- | -- | 0.9 | 4 |
| **273** | 1.82 | 0 | 5.78 | 2 | 4.48 | 4 | 0.613 | 0 | 0.477 | 0 |
| **274** | 1.94 | 0 | 5.01 | 2 | 4.32 | 3 | 0.24 | 0 | 0.81 | 3 |
| **277** | | | 5.3 | 4 | 4.6 | 3 | -- | -- | | |
| **279** | 1.58 | 4 | 5.5 | 4 | | | -- | -- | | |
| **301** | 3.578 | 0 | -- | -- | | | 0.119 | 0 | 0.789 | 3 |
| **321** | | | 4.97 | 1 | 4.38 | 4 | 0.071 | 3 | 0.9 | 4 |
| **323** | 1.62 | 4 | 5.58 | 3 | 4.6 | 3 | 0.071 | 3 | 0.89 | 4 |
| **326** | 1.62 | 4 | 5.2 | 3 | | | -- | -- | 4.02 | 0 |
| **327** | | | -- | -- | | | -- | -- | <5 | NR |
| **328** | 1.7 | 3 | 6.37 | 0 | 4.67 | 3 | 0.15 | 0 | 3.25 | 0 |
| **333** | 1.63 | 4 | 5.6 | 3 | 4.47 | 4 | 0.068 | 4 | 0.92 | 4 |
| **379** | 5.39 | 0 | 0.491 | 0 | 4.12 | 1 | 0.046 | 0 | <10 | NR |
| **383** | 1.6 | 4 | 5.63 | 3 | | | -- | -- | 0.1 | 0 |

**Table 9.** ***Laboratory performance ratings for standard reference sample P-40 (low ionic-strength constituents) -- continued***

[MPV, most probable value; Lab, laboratory identification number; OLR, overall laboratory rating for all rated analyses; mg/L, milligrams per liter; µS/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 criterion.]

| 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 = | Specific Conductance | |
|---|---|---|
| MPV = | 66.8 µS/cm | |
| F-pseudosigma = | 2.27 (3.34) | |
| **Lab** | RV | Rating |
| **1** | 66.8 | 4 |
| **2** | 63.5 | 3 |
| **5** | 65 | 3 |
| **8** | 66 | 4 |
| **23** | 71.6 | 2 |
| **25** | | |
| **33** | 65.07 | 3 |
| **38** | 66.6 | 4 |
| **45** | 64.8 | 3 |
| **46** | 68.3 | 4 |
| **59** | 66.7 | 4 |
| **64** | 69.1 | 3 |
| **86** | 66 | 4 |
| **89** | 50.8 | 0 |
| **105** | 67 | 4 |
| **110** | 63.3 | 2 |
| **113** | 67.4 | 4 |
| **134** | 68 | 4 |
| **138** | 67.4 | 4 |
| **180** | 63 | 2 |
| **190** | 66 | 4 |
| **193** | 68.9 | 3 |
| **208** | | |
| **247** | 68 | 4 |
| **265** | | |
| **273** | 68 | 4 |
| **274** | 64.9 | 3 |
| **277** | 60.7 | 1 |
| **279** | | |
| **301** | | |
| **321** | 66.6 | 4 |
| **323** | 67 | 4 |
| **326** | | |
| **327** | 71.1 | 2 |
| **328** | 69 | 3 |
| **333** | 68.2 | 4 |
| **379** | 68.7 | 3 |
| **383** | | |

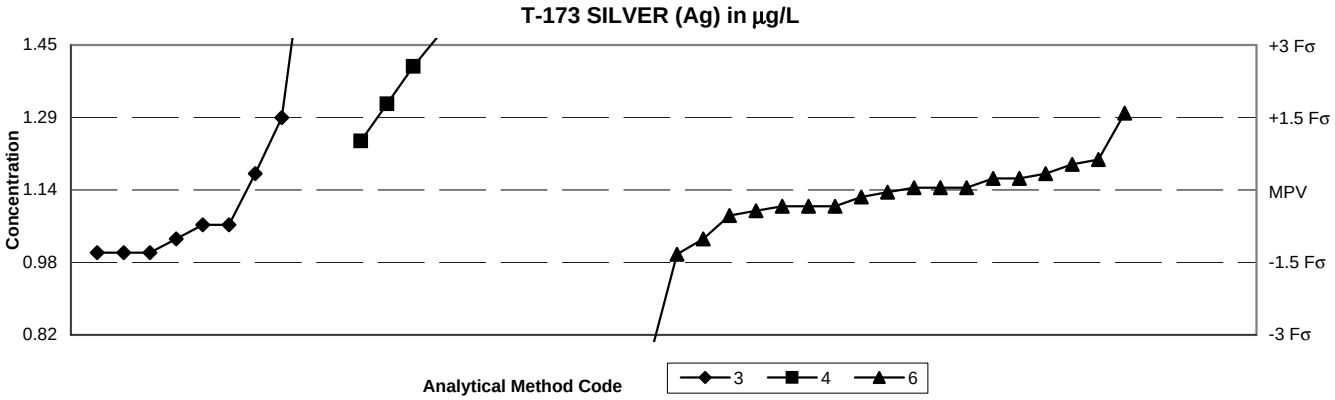
**Table 10.** ***Laboratory performance ratings for standard reference sample HG-36 (Mercury)***

[MPV, most probable value; Lab, laboratory identification 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.]

| 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 =** | **Mercury (Hg)** |
|---|---|---|---|---|
| | | | MPV = | 0.052 µg/L |
| | | | F-pseudosigma = | 0.0051 |
| **Lab** | OLR | V/1 | RV | Rating |
| **1** | 3.0 | 1 | 0.0483 | 3 |
| **18** | 2.0 | 1 | 0.046 | 2 |
| **32** | 0.0 | 1 | 0.038 | 0 |
| **45** | 3.0 | 1 | 0.056 | 3 |
| **46** | 4.0 | 1 | 0.052 | 4 |
| **59** | 4.0 | 1 | 0.0533 | 4 |
| **105** | NR | 0 | <0.2 | NR |
| **138** | 4.0 | 1 | 0.051 | 4 |
| **180** | 0.0 | 1 | 0.064 | 0 |
| **235** | 3.0 | 1 | 0.0476 | 3 |
| **245** | 2.0 | 1 | 0.057 | 2 |
| **247** | NR | 0 | <0.2 | NR |
| **304** | 3.0 | 1 | 0.048 | 3 |
| **356** | 4.0 | 1 | 0.0531 | 4 |

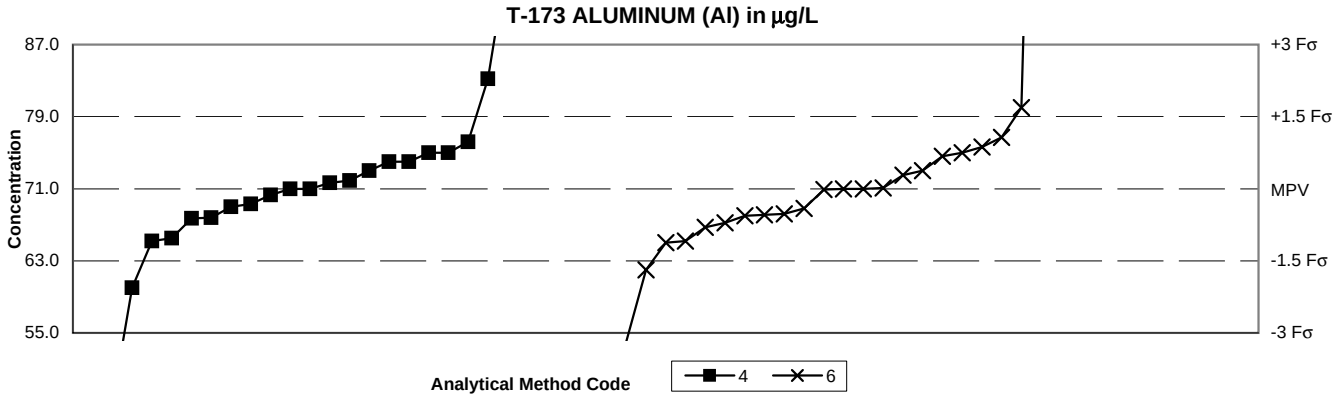
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents)***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 9 | 5 | 20 | 03 Atomic absorption: graphite furnace | **MPV =** | **1.14 µg/L** |
| Minimum = | 1 | 1.24 | 0.387 | 04 Inductively coupled plasma | F-pseudosigma = | 0.1038 |
| Maximum = | 1.71 | 44 | 1.3 | 06 Inductively coupled plasma / mass spectrometry | n = | 34 |
| Median = | 1.06 | 1.40 | 1.13 | | Uh = | 1.20 |
| F-pseudosigma = | 0.126 | 0.111 | 0.056 | | Lh = | 1.06 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 0 | -7.21 | -- | -- | 0.387 | **356** | 4 | -0.05 | -- | -- | 1.13 |
| **5** | NR | -- | -- | <4.00 | -- | **379** | 0 | 5.54 | 1.71 | -- | -- |
| **8** | 2 | -1.01 | -- | -- | 1.03 | **390** | 4 | 0.05 | -- | -- | 1.14 |
| **12** | 2 | -1.30 | 1 | -- | -- | | | | | | |
| **16** | 3 | 0.63 | -- | -- | 1.2 | | | | | | |
| **18** | NR | -- | -- | <3 | -- | | | | | | |
| **23** | 0 | 413.03 | -- | 44 | -- | | | | | | |
| **25** | NR | -- | -- | < 17 | -- | | | | | | |
| **32** | 4 | -0.43 | -- | -- | 1.09 | | | | | | |
| **42** | NR | -- | -- | -- | <1 | | | | | | |
| **45** | 4 | 0.05 | -- | -- | 1.14 | | | | | | |
| **50** | 3 | -0.53 | -- | -- | 1.08 | | | | | | |
| **59** | 0 | -3.42 | -- | -- | 0.78 | | | | | | |
| **70** | NR | -- | <10 | -- | -- | | | | | | |
| **76** | NR | -- | -- | -- | <2.0 | | | | | | |
| **97** | 1 | 1.78 | -- | 1.32 | -- | | | | | | |
| **100** | 4 | 0.34 | 1.17 | -- | -- | | | | | | |
| **105** | 4 | -0.34 | -- | -- | 1.1 | | | | | | |
| **113** | 2 | -1.30 | 1 | -- | -- | | | | | | |
| **134** | 2 | 1.01 | -- | 1.24 | -- | | | | | | |
| **138** | 4 | 0.05 | -- | -- | 1.14 | | | | | | |
| **142** | NR | -- | -- | -- | <1 | | | | | | |
| **146** | NR | -- | -- | <10.0 | -- | | | | | | |
| **149** | 4 | -0.34 | -- | -- | 1.1 | | | | | | |
| **180** | 2 | -1.33 | -- | -- | 0.997 | | | | | | |
| **190** | 3 | -0.72 | 1.06 | -- | -- | | | | | | |
| **193** | 3 | -0.72 | 1.06 | -- | -- | | | | | | |
| **212** | 3 | 0.53 | -- | -- | 1.19 | | | | | | |
| **230** | 1 | 1.59 | -- | -- | 1.3 | | | | | | |
| **234** | 0 | 3.23 | -- | 1.47 | -- | | | | | | |
| **235** | 4 | 0.24 | -- | -- | 1.16 | | | | | | |
| **247** | NR | -- | -- | <10 | -- | | | | | | |
| **256** | 0 | 2.55 | -- | 1.4 | -- | | | | | | |
| **265** | 4 | -0.34 | -- | -- | 1.1 | | | | | | |
| **277** | 2 | 1.49 | 1.29 | -- | -- | | | | | | |
| **304** | 4 | 0.24 | -- | -- | 1.16 | | | | | | |
| **307** | 2 | -1.01 | 1.03 | -- | -- | | | | | | |
| **323** | 4 | -0.14 | -- | -- | 1.12 | | | | | | |
| **328** | 2 | -1.30 | 1 | -- | -- | | | | | | |
| **330** | 4 | 0.34 | -- | -- | 1.17 | | | | | | |

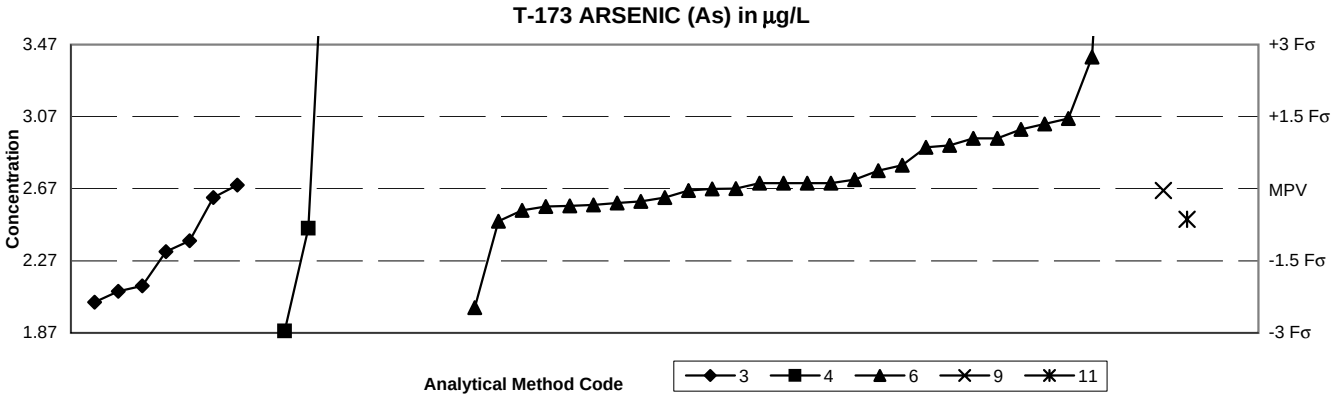
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 3 | 4 | 5 | 6 | Method Codes | | |
| n = | 1 | 21 | 1 | 22 | 03 Atomic absorption: graphite furnace | **MPV =** | **71.0 µg/L** |
| Minimum = | 99.6 | 47.3 | 102.3 | 54 | 04 Inductively coupled plasma | F-pseudosigma = | 5.34 |
| Maximum = | | 96.7 | | 160 | 05 Direct current plasma | n = | 45 |
| Median = | | 71.0 | | 71.0 | 06 Inductively coupled plasma / mass spectrometry | Uh = | 75.0 |
| F-pseudosigma = | | 4.60 | | 5.49 | | Lh = | 67.8 |

| Lab | Rating | Z-value | Method Codes 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| **1** | 3 | 0.87 | -- | -- | -- | 75.65 |
| **5** | 0 | 4.82 | -- | 96.7 | -- | -- |
| **7** | 3 | -0.52 | -- | -- | -- | 68.2 |
| **8** | 2 | -1.12 | -- | -- | -- | 65 |
| **16** | 4 | 0.00 | -- | 71 | -- | -- |
| **18** | NR | -- | -- | <100 | -- | -- |
| **24** | NR | -- | -- | <202 | -- | -- |
| **25** | 3 | -0.60 | -- | 67.8 | -- | -- |
| **30** | 4 | 0.00 | -- | -- | -- | 71 |
| **32** | 4 | 0.28 | -- | -- | -- | 72.5 |
| **33** | 0 | 5.86 | -- | -- | 102.3 | -- |
| **42** | 4 | -0.41 | -- | -- | -- | 68.8 |
| **45** | 3 | -0.54 | -- | -- | -- | 68.1 |
| **46** | NR | -- | -- | <100 | -- | -- |
| **50** | 3 | 0.67 | -- | -- | -- | 74.6 |
| **59** | 3 | -0.81 | -- | -- | -- | 66.7 |
| **70** | 2 | 1.07 | -- | -- | -- | 76.7 |
| **86** | 4 | -0.13 | -- | 70.3 | -- | -- |
| **97** | 4 | 0.37 | -- | 73 | -- | -- |
| **100** | 2 | -1.09 | -- | -- | -- | 65.2 |
| **105** | 3 | 0.75 | -- | -- | -- | 75 |
| **110** | 4 | 0.12 | -- | 71.66 | -- | -- |
| **113** | 4 | 0.00 | -- | 71 | -- | -- |
| **134** | 3 | 0.75 | -- | 75 | -- | -- |
| **138** | 3 | -0.62 | -- | 67.7 | -- | -- |
| **142** | 4 | -0.32 | -- | 69.3 | -- | -- |
| **146** | 0 | -2.06 | -- | 60 | -- | -- |
| **149** | 4 | 0.00 | -- | -- | -- | 71 |
| **180** | 1 | -1.69 | -- | -- | -- | 62 |
| **190** | 3 | 0.97 | -- | 76.2 | -- | -- |
| **212** | 2 | -1.09 | -- | 65.2 | -- | -- |
| **219** | 4 | -0.02 | -- | -- | -- | 70.9 |
| **220** | 3 | 0.56 | -- | 74 | -- | -- |
| **230** | 0 | -3.19 | -- | -- | -- | 54 |
| **234** | 4 | 0.17 | -- | 71.9 | -- | -- |
| **235** | 4 | 0.02 | -- | -- | -- | 71.1 |
| **247** | NR | -- | -- | <80 | -- | -- |
| **256** | 3 | 0.75 | -- | 75 | -- | -- |
| **259** | 4 | -0.37 | -- | 69 | -- | -- |
| **265** | 3 | -0.56 | -- | -- | -- | 68 |
| **273** | 0 | 2.29 | -- | 83.2 | -- | -- |
| **277** | 0 | 5.36 | 99.6 | -- | -- | -- |
| **304** | 4 | 0.37 | -- | -- | -- | 73 |
| **323** | 3 | 0.56 | -- | 74 | -- | -- |
| **328** | 0 | 16.68 | -- | -- | -- | 160 |
| **330** | 3 | -0.71 | -- | -- | -- | 67.2 |
| **356** | 2 | -1.03 | -- | 65.5 | -- | -- |
| **379** | 0 | -4.44 | -- | 47.3 | -- | -- |
| **390** | 1 | 1.69 | -- | -- | -- | 80 |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

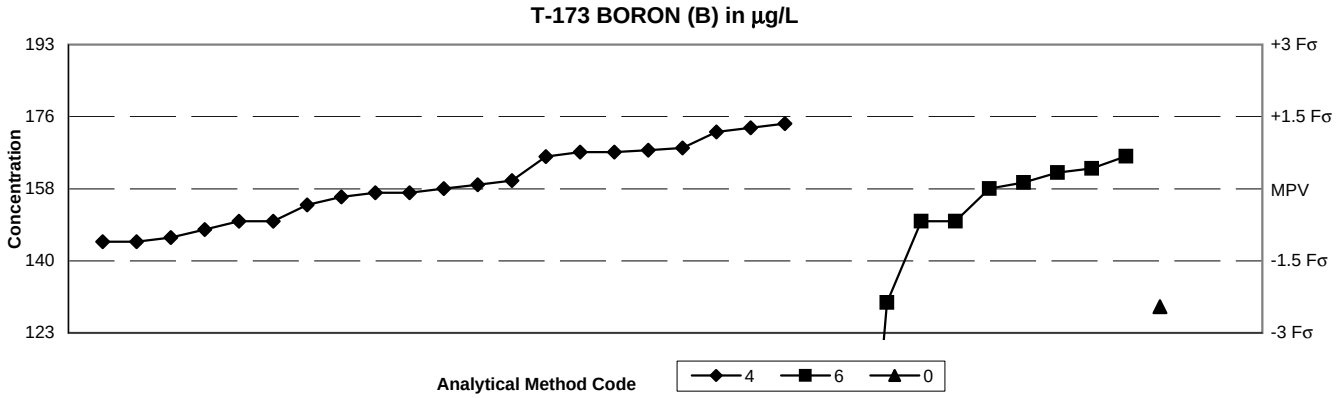



| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | 9 | 11 | Method Codes | | |
| n = | 7 | 5 | 28 | 1 | 1 | 03 Atomic absorption: graphite furnace | **MPV =** | **2.67 µg/L** |
| Minimum = | 2.04 | 1.88 | 2.01 | 2.66 | 2.5 | 04 Inductively coupled plasma | F-pseudosigma = | 0.267 |
| Maximum = | 2.69 | 110 | 5.73 | | | 06 Inductively coupled plasma / mass spectrometry | n = | 42 |
| Median = | 2.32 | 5.00 | 2.70 | | | 09 Atomic fluorescence | Uh = | 2.91 |
| F-pseudosigma = | 0.285 | 2.387 | 0.248 | | | 11 Atomic absorption: hydride | Lh = | 2.55 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | 9 | 11 |
| **1** | 4 | -0.35 | -- | -- | 2.575 | -- | -- |
| **5** | 4 | -0.19 | 2.62 | -- | -- | -- | -- |
| **7** | 0 | 11.47 | -- | -- | 5.73 | -- | -- |
| **8** | 4 | -0.45 | -- | -- | 2.55 | -- | -- |
| **10** | 3 | -0.64 | -- | -- | -- | -- | 2.5 |
| **16** | 4 | 0.49 | -- | -- | 2.8 | -- | -- |
| **18** | 4 | -0.04 | -- | -- | 2.66 | -- | -- |
| **23** | 0 | 402.19 | -- | 110 | -- | -- | -- |
| **24** | NR | -- | -- | <121 | -- | -- | -- |
| **25** | NR | -- | -- | < 21 | -- | -- | -- |
| **30** | 4 | 0.11 | -- | -- | 2.7 | -- | -- |
| **32** | 4 | -0.34 | -- | -- | 2.58 | -- | -- |
| **42** | 3 | 0.90 | -- | -- | 2.91 | -- | -- |
| **45** | 3 | -0.67 | -- | -- | 2.49 | -- | -- |
| **46** | NR | -- | <3 | -- | -- | -- | -- |
| **50** | 4 | 0.00 | -- | -- | 2.67 | -- | -- |
| **59** | 4 | 0.11 | -- | -- | 2.7 | -- | -- |
| **70** | 4 | -0.26 | -- | -- | 2.6 | -- | -- |
| **76** | 4 | 0.00 | -- | -- | 2.669 | -- | -- |
| **97** | 0 | -2.36 | 2.04 | -- | -- | -- | -- |
| **100** | 0 | -2.02 | 2.13 | -- | -- | -- | -- |
| **105** | NR | -- | -- | -- | <4.0 | -- | -- |
| **134** | 4 | 0.08 | 2.69 | -- | -- | -- | -- |
| **138** | 0 | -2.47 | -- | -- | 2.01 | -- | -- |
| **142** | 4 | 0.19 | -- | -- | 2.72 | -- | -- |
| **146** | 0 | 8.73 | -- | 5 | -- | -- | -- |
| **147** | 4 | -0.37 | -- | -- | 2.57 | -- | -- |
| **149** | 2 | 1.24 | -- | -- | 3 | -- | -- |
| **180** | 4 | -0.30 | -- | -- | 2.59 | -- | -- |
| **190** | 0 | -2.13 | 2.1 | -- | -- | -- | -- |
| **212** | 2 | 1.05 | -- | -- | 2.95 | -- | -- |
| **219** | 0 | 2.74 | -- | -- | 3.4 | -- | -- |
| **230** | 3 | 0.86 | -- | -- | 2.9 | -- | -- |
| **234** | 2 | -1.08 | 2.38 | -- | -- | -- | -- |
| **235** | 4 | -0.04 | -- | -- | -- | 2.66 | -- |
| **247** | NR | -- | -- | <40 | -- | -- | -- |
| **256** | 0 | -2.96 | -- | 1.88 | -- | -- | -- |
| **259** | 3 | -0.82 | -- | 2.45 | -- | -- | -- |
| **265** | 4 | 0.11 | -- | -- | 2.7 | -- | -- |
| **304** | 2 | 1.05 | -- | -- | 2.95 | -- | -- |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | 9 | 11 |
| **307** | 2 | -1.31 | 2.32 | -- | -- | -- | -- |
| **323** | 4 | 0.11 | -- | -- | 2.7 | -- | -- |
| **328** | 4 | 0.38 | -- | -- | 2.77 | -- | -- |
| **330** | 2 | 1.35 | -- | -- | 3.03 | -- | -- |
| **356** | 2 | 1.46 | -- | -- | 3.06 | -- | -- |
| **379** | 0 | 11.24 | -- | 5.67 | -- | -- | -- |
| **390** | 4 | -0.19 | -- | -- | 2.62 | -- | -- |

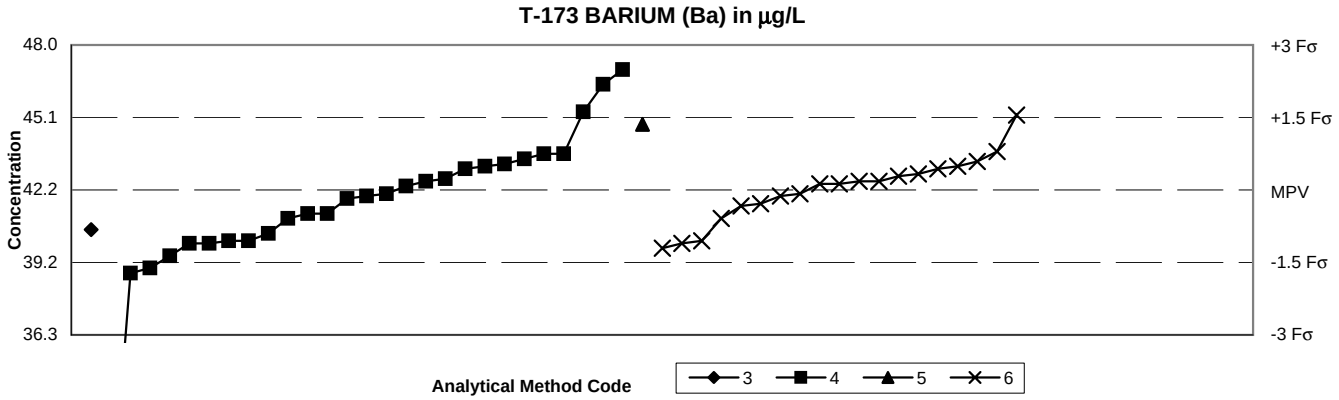
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | Methods | | | Statistics | | |
|---|---|---|---|---|---|---|---|
| | 0 | 4 | 6 | Method Codes | | | |
| n = | 1 | 21 | 9 | 00 Other | **MPV =** | **158** | **µg/L** |
| Minimum = | 129 | 145 | 32.6 | 04 Inductively coupled plasma | F-pseudosigma = | 11.8 | |
| Maximum = | | 174 | 166 | 06 Inductively coupled plasma / mass spectrometry | n = | 31 | |
| Median = | | 158 | 158 | | Uh = | 166 | |
| F-pseudosigma = | | 12.6 | 8.9 | | Lh = | 150 | |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 6 |
| **1** | 4 | 0.13 | -- | -- | 159.5 |
| **5** | 4 | 0.08 | -- | 159 | -- |
| **7** | 3 | -0.85 | -- | 148 | -- |
| **8** | 0 | -2.37 | -- | -- | 130 |
| **18** | 3 | -0.68 | -- | 150 | -- |
| **24** | 4 | -0.17 | -- | 156 | -- |
| **25** | 3 | 0.67 | -- | 165.9 | -- |
| **32** | 3 | -0.68 | -- | -- | 150 |
| **42** | 4 | -0.08 | -- | 157 | -- |
| **45** | 4 | 0.00 | -- | -- | 158 |
| **50** | 4 | 0.34 | -- | -- | 162 |
| **59** | 0 | -10.61 | -- | -- | 32.6 |
| **86** | 4 | -0.34 | -- | 154 | -- |
| **100** | 3 | -0.68 | -- | 150 | -- |
| **105** | NR | -- | -- | <200 | -- |
| **134** | 4 | -0.08 | -- | 157 | -- |
| **138** | 2 | -1.01 | -- | 146 | -- |
| **142** | 2 | 1.35 | -- | 174 | -- |
| **212** | 2 | -1.10 | -- | 145 | -- |
| **219** | 4 | 0.00 | -- | 158 | -- |
| **220** | 3 | 0.76 | -- | 167 | -- |
| **230** | 3 | 0.68 | -- | -- | 166 |
| **234** | 2 | 1.18 | -- | 172 | -- |
| **235** | 4 | 0.42 | -- | -- | 163 |
| **247** | 4 | 0.17 | -- | 160 | -- |
| **259** | 2 | 1.27 | -- | 173 | -- |
| **265** | 3 | -0.68 | -- | -- | 150 |
| **273** | 0 | -2.45 | 129 | -- | -- |
| **323** | 3 | 0.76 | -- | 167 | -- |
| **326** | 3 | 0.80 | -- | 167.5 | -- |
| **328** | 2 | -1.10 | -- | 145 | -- |
| **356** | 3 | 0.85 | -- | 168 | -- |

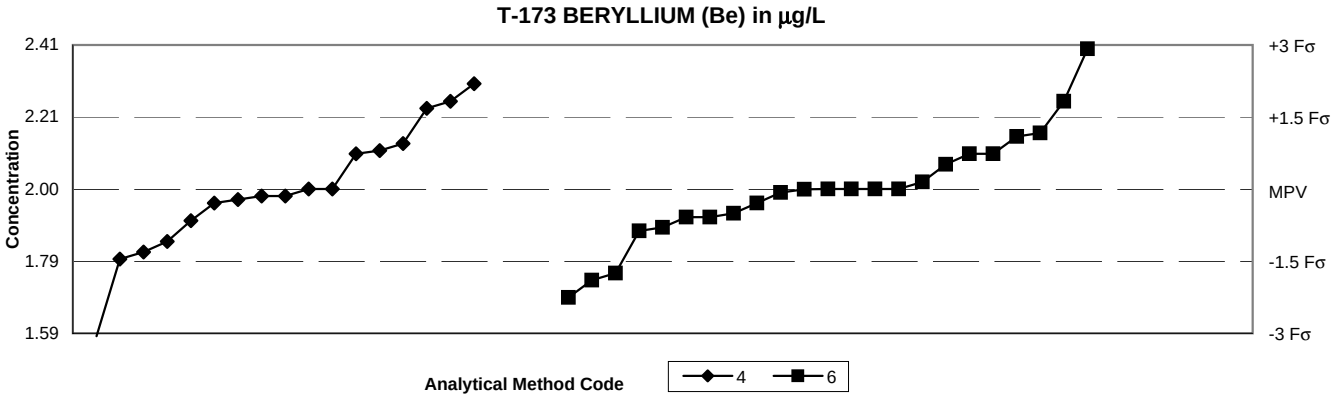
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 3 | 4 | 5 | 6 | Method Codes | | |
| n = | 1 | 27 | 1 | 19 | 03 Atomic absorption: graphite furnace | **MPV =** | **42.2 µg/L** |
| Minimum = | 40.55 | 28.7 | 44.79 | 39.8 | 04 Inductively coupled plasma | F-pseudosigma = | 1.95 |
| Maximum = | | 47 | | 45.17 | 05 Direct current plasma | Rating criterion = | 2.11 |
| Median = | | 41.9 | | 42.4 | 06 Inductively coupled plasma / mass spectrometry | n = | 48 |
| F-pseudosigma = | | 2.26 | | 1.00 | | Uh = | 43.1 |
| | | | | | | Lh = | 40.5 |

| | | | Method Codes | | | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 5 | 6 | | **Lab** | Rating | Z-value | 3 | 4 | 5 | 6 |
| **1** | 2 | 1.43 | -- | -- | -- | 45.17 | | **304** | 4 | 0.12 | -- | -- | -- | 42.4 |
| **5** | 3 | 0.69 | -- | 43.6 | -- | -- | | **323** | 4 | 0.31 | -- | -- | -- | 42.8 |
| **7** | 0 | -6.38 | -- | 28.7 | -- | -- | | **326** | 4 | 0.17 | -- | 42.5 | -- | -- |
| **8** | 4 | 0.45 | -- | -- | -- | 43.1 | | **328** | 4 | 0.40 | -- | 43 | -- | -- |
| **16** | 2 | -1.49 | -- | 39 | -- | -- | | **330** | 4 | -0.12 | -- | -- | -- | 41.9 |
| **18** | 1 | -1.59 | -- | 38.8 | -- | -- | | **356** | 4 | 0.26 | -- | -- | -- | 42.7 |
| **23** | 3 | -0.83 | -- | 40.4 | -- | -- | | **379** | 4 | -0.17 | -- | 41.8 | -- | -- |
| **24** | 3 | 0.59 | -- | 43.4 | -- | -- | | **390** | 3 | 0.55 | -- | -- | -- | 43.3 |
| **25** | 3 | -0.97 | -- | 40.1 | -- | -- | | | | | | | | |
| **32** | 4 | -0.31 | -- | -- | -- | 41.5 | | | | | | | | |
| **33** | 2 | 1.25 | -- | -- | 44.79 | -- | | | | | | | | |
| **42** | 4 | 0.12 | -- | -- | -- | 42.4 | | | | | | | | |
| **45** | 2 | -1.12 | -- | -- | -- | 39.8 | | | | | | | | |
| **46** | 3 | -0.55 | -- | 41 | -- | -- | | | | | | | | |
| **50** | 4 | -0.26 | -- | -- | -- | 41.6 | | | | | | | | |
| **59** | 4 | 0.17 | -- | -- | -- | 42.5 | | | | | | | | |
| **70** | 2 | -1.02 | -- | -- | -- | 40 | | | | | | | | |
| **76** | 4 | -0.07 | -- | -- | -- | 42 | | | | | | | | |
| **86** | 2 | -1.26 | -- | 39.5 | -- | -- | | | | | | | | |
| **97** | 4 | -0.45 | -- | 41.2 | -- | -- | | | | | | | | |
| **100** | 0 | 2.02 | -- | 46.4 | -- | -- | | | | | | | | |
| **105** | 0 | 2.30 | -- | 47 | -- | -- | | | | | | | | |
| **113** | 4 | 0.07 | -- | 42.3 | -- | -- | | | | | | | | |
| **134** | 4 | -0.07 | -- | 42 | -- | -- | | | | | | | | |
| **138** | 3 | -0.97 | -- | 40.1 | -- | -- | | | | | | | | |
| **142** | 4 | 0.40 | -- | -- | -- | 43 | | | | | | | | |
| **146** | 3 | 0.69 | -- | 43.6 | -- | -- | | | | | | | | |
| **149** | 3 | -0.55 | -- | -- | -- | 41 | | | | | | | | |
| **180** | 3 | -0.97 | -- | -- | -- | 40.1 | | | | | | | | |
| **183** | 3 | -0.76 | 40.55 | -- | -- | -- | | | | | | | | |
| **212** | 2 | 1.49 | -- | 45.3 | -- | -- | | | | | | | | |
| **219** | 4 | 0.17 | -- | -- | -- | 42.5 | | | | | | | | |
| **220** | 4 | -0.12 | -- | 41.9 | -- | -- | | | | | | | | |
| **230** | 3 | 0.74 | -- | -- | -- | 43.7 | | | | | | | | |
| **234** | 4 | -0.45 | -- | 41.2 | -- | -- | | | | | | | | |
| **235** | 4 | 0.21 | -- | 42.6 | -- | -- | | | | | | | | |
| **247** | 2 | -1.02 | -- | 40 | -- | -- | | | | | | | | |
| **259** | 4 | 0.50 | -- | 43.2 | -- | -- | | | | | | | | |
| **265** | 2 | -1.02 | -- | 40 | -- | -- | | | | | | | | |
| **273** | 4 | 0.45 | -- | 43.1 | -- | -- | | | | | | | | |

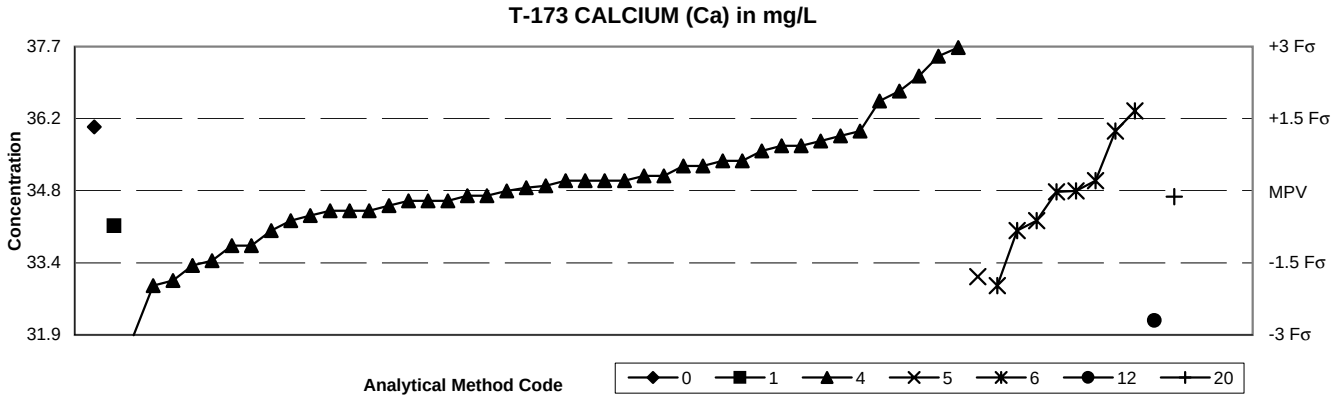
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | Methods | Statistics | |
|---|---|---|---|---|---|
| | 4 | 6 | Method Codes | | |
| n = | 17 | 23 | 04 Inductively coupled plasma | **MPV =** | **2.00 µg/L** |
| Minimum = | 1.58 | 1.69 | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 0.137 |
| Maximum = | 2.3 | 2.4 | | n = | 40 |
| Median = | 1.98 | 2.00 | | Uh = | 2.10 |
| F-pseudosigma = | 0.148 | 0.122 | | Lh = | 1.92 |

| | | | Method Codes | | | | | Method Codes | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 | **Lab** | Rating | Z-value | 4 | 6 |
| **1** | 4 | -0.50 | -- | 1.931 | **330** | 4 | -0.07 | -- | 1.99 |
| **5** | 4 | -0.14 | 1.98 | -- | **356** | 3 | -0.87 | -- | 1.88 |
| **7** | 3 | 0.51 | -- | 2.07 | **379** | 2 | -1.09 | 1.85 | -- |
| **8** | 1 | -1.75 | -- | 1.76 | | | | | |
| **16** | 4 | 0.00 | 2 | -- | | | | | |
| **18** | 4 | -0.29 | 1.96 | -- | | | | | |
| **23** | 4 | -0.22 | 1.97 | -- | | | | | |
| **25** | 2 | -1.45 | 1.8 | -- | | | | | |
| **32** | 4 | 0.00 | -- | 2 | | | | | |
| **42** | 3 | -0.80 | -- | 1.89 | | | | | |
| **45** | 4 | -0.29 | -- | 1.96 | | | | | |
| **46** | NR | -- | <2.0 | -- | | | | | |
| **50** | 2 | 1.10 | -- | 2.15 | | | | | |
| **59** | 4 | 0.15 | -- | 2.02 | | | | | |
| **70** | 3 | 0.73 | -- | 2.1 | | | | | |
| **76** | 4 | 0.00 | -- | 1.999 | | | | | |
| **86** | 2 | -1.31 | 1.82 | -- | | | | | |
| **97** | 1 | 1.68 | 2.23 | -- | | | | | |
| **100** | 3 | 0.81 | 2.11 | -- | | | | | |
| **105** | 4 | 0.00 | 2 | -- | | | | | |
| **113** | 0 | 2.19 | 2.3 | -- | | | | | |
| **134** | 3 | 0.73 | 2.1 | -- | | | | | |
| **138** | 3 | -0.65 | 1.91 | -- | | | | | |
| **142** | 3 | -0.58 | -- | 1.92 | | | | | |
| **146** | 0 | -3.06 | 1.58 | -- | | | | | |
| **149** | 4 | 0.00 | -- | 2 | | | | | |
| **180** | 0 | -2.26 | -- | 1.69 | | | | | |
| **212** | 2 | 1.17 | -- | 2.16 | | | | | |
| **219** | 4 | 0.00 | -- | 2 | | | | | |
| **230** | 3 | 0.73 | -- | 2.1 | | | | | |
| **234** | 3 | 0.95 | 2.13 | -- | | | | | |
| **235** | 1 | -1.89 | -- | 1.74 | | | | | |
| **247** | NR | -- | <10 | -- | | | | | |
| **256** | 4 | -0.14 | 1.98 | -- | | | | | |
| **265** | 4 | 0.00 | -- | 2 | | | | | |
| **273** | 1 | 1.83 | 2.25 | -- | | | | | |
| **304** | 1 | 1.83 | -- | 2.25 | | | | | |
| **323** | 0 | 2.92 | -- | 2.4 | | | | | |
| **327** | NR | -- | <10 | -- | | | | | |
| **328** | 3 | -0.58 | -- | 1.92 | | | | | |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

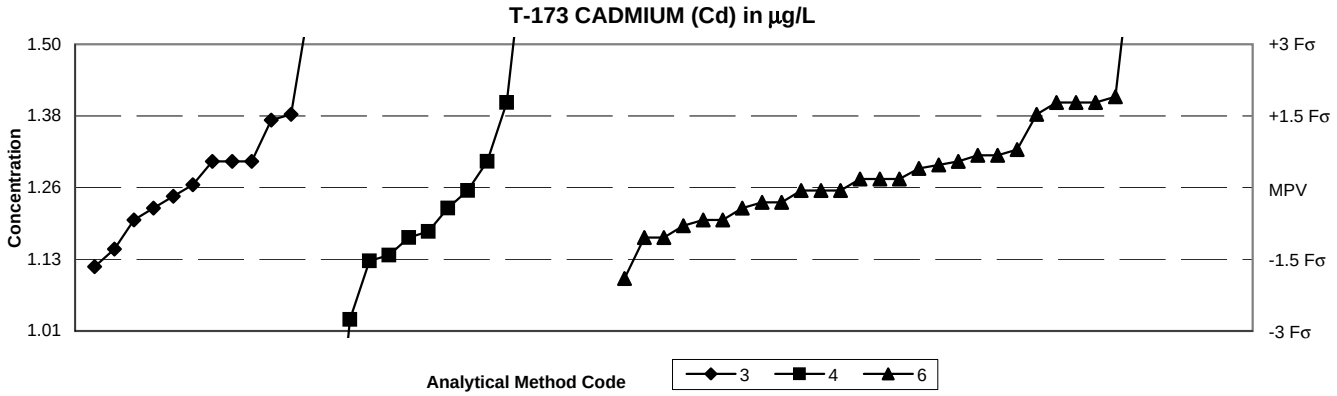



| SUMMARY | Methods | | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 12 | 20 | Method Codes | | |
| n = | 1 | 1 | 43 | 1 | 8 | 1 | 1 | 00 Other | **MPV =** | **34.8 mg/L** |
| Minimum = | 36.08 | 34.1 | 31.9 | 33.08 | 32.9 | 32.2 | 34.68 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.96 |
| Maximum = | | | 37.67 | | 36.4 | | | 04 Inductively coupled plasma | Rating criterion = | 1.74 |
| Median = | | | 34.9 | | 34.8 | | | 05 Direct current plasma | n = | 56 |
| F-pseudosigma = | | | 0.82 | | 1.04 | | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 35.5 |
| | | | | | | | | 12 Flame emission | Lh = | 34.2 |
| | | | | | | | | 20 Titration: colorimetric | | |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 | 20 |
| **1** | 4 | 0.34 | -- | -- | 35.4 | -- | -- | -- | -- |
| **5** | 4 | 0.29 | -- | -- | 35.3 | -- | -- | -- | -- |
| **7** | 3 | -0.86 | -- | -- | 33.3 | -- | -- | -- | -- |
| **8** | 4 | -0.23 | -- | -- | 34.4 | -- | -- | -- | -- |
| **12** | 4 | -0.11 | -- | -- | 34.6 | -- | -- | -- | -- |
| **16** | 2 | -1.03 | -- | -- | 33 | -- | -- | -- | -- |
| **18** | 2 | -1.09 | -- | -- | 32.9 | -- | -- | -- | -- |
| **23** | 4 | 0.11 | -- | -- | 35 | -- | -- | -- | -- |
| **24** | 3 | -0.80 | -- | -- | 33.4 | -- | -- | -- | -- |
| **25** | 1 | 1.65 | -- | -- | 37.67 | -- | -- | -- | -- |
| **30** | 3 | 0.69 | -- | -- | -- | -- | 36 | -- | -- |
| **32** | 4 | -0.46 | -- | -- | -- | -- | 34 | -- | -- |
| **33** | 3 | -0.99 | -- | -- | -- | 33.08 | -- | -- | -- |
| **42** | 3 | -0.63 | -- | -- | 33.7 | -- | -- | -- | -- |
| **45** | 4 | 0.00 | -- | -- | -- | -- | 34.8 | -- | -- |
| **46** | 4 | 0.46 | -- | -- | 35.6 | -- | -- | -- | -- |
| **50** | 4 | 0.06 | -- | -- | 34.9 | -- | -- | -- | -- |
| **59** | 4 | -0.40 | -- | 34.1 | -- | -- | -- | -- | -- |
| **64** | 4 | 0.11 | -- | -- | 35 | -- | -- | -- | -- |
| **70** | 3 | 0.52 | -- | -- | 35.7 | -- | -- | -- | -- |
| **76** | 4 | -0.01 | -- | -- | -- | -- | 34.78 | -- | -- |
| **86** | 4 | 0.17 | -- | -- | 35.1 | -- | -- | -- | -- |
| **97** | 4 | -0.34 | -- | -- | 34.2 | -- | -- | -- | -- |
| **100** | 2 | 1.32 | -- | -- | 37.1 | -- | -- | -- | -- |
| **105** | 1 | 1.55 | -- | -- | 37.5 | -- | -- | -- | -- |
| **110** | 4 | 0.03 | -- | -- | 34.86 | -- | -- | -- | -- |
| **113** | 4 | 0.11 | -- | -- | 35 | -- | -- | -- | -- |
| **134** | 4 | 0.11 | -- | -- | 35 | -- | -- | -- | -- |
| **138** | 4 | -0.06 | -- | -- | 34.7 | -- | -- | -- | -- |
| **142** | 3 | 0.63 | -- | -- | 35.9 | -- | -- | -- | -- |
| **146** | 2 | 1.15 | -- | -- | 36.8 | -- | -- | -- | -- |
| **149** | 4 | -0.34 | -- | -- | -- | -- | 34.2 | -- | -- |
| **180** | 4 | -0.11 | -- | -- | 34.6 | -- | -- | -- | -- |
| **190** | 3 | 0.52 | -- | -- | 35.7 | -- | -- | -- | -- |
| **193** | 2 | -1.09 | -- | -- | -- | -- | 32.9 | -- | -- |
| **212** | 3 | -0.63 | -- | -- | 33.7 | -- | -- | -- | -- |
| **219** | 4 | -0.29 | -- | -- | 34.3 | -- | -- | -- | -- |
| **220** | 4 | -0.23 | -- | -- | 34.4 | -- | -- | -- | -- |
| **227** | 3 | 0.69 | -- | -- | 36 | -- | -- | -- | -- |
| **230** | 4 | 0.11 | -- | -- | -- | -- | 35 | -- | -- |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 | 20 |
| **234** | 4 | 0.00 | -- | -- | 34.8 | -- | -- | -- | -- |
| **235** | 4 | 0.29 | -- | -- | 35.3 | -- | -- | -- | -- |
| **247** | 4 | -0.46 | -- | -- | 34 | -- | -- | -- | -- |
| **259** | 4 | 0.34 | -- | -- | 35.4 | -- | -- | -- | -- |
| **265** | 4 | -0.06 | -- | -- | 34.7 | -- | -- | -- | -- |
| **273** | 4 | -0.17 | -- | -- | 34.5 | -- | -- | -- | -- |
| **274** | 4 | -0.07 | -- | -- | -- | -- | -- | -- | 34.68 |
| **277** | 2 | -1.49 | -- | -- | -- | -- | -- | 32.2 | -- |
| **279** | 3 | 0.74 | 36.08 | -- | -- | -- | -- | -- | -- |
| **323** | 4 | -0.11 | -- | -- | 34.6 | -- | -- | -- | -- |
| **326** | 4 | 0.17 | -- | -- | 35.1 | -- | -- | -- | -- |
| **328** | 2 | 1.03 | -- | -- | 36.6 | -- | -- | -- | -- |
| **330** | 3 | 0.57 | -- | -- | 35.8 | -- | -- | -- | -- |
| **356** | 4 | -0.23 | -- | -- | 34.4 | -- | -- | -- | -- |
| **386** | 1 | -1.67 | -- | -- | 31.9 | -- | -- | -- | -- |
| **390** | 3 | 0.92 | -- | -- | -- | -- | 36.4 | -- | -- |

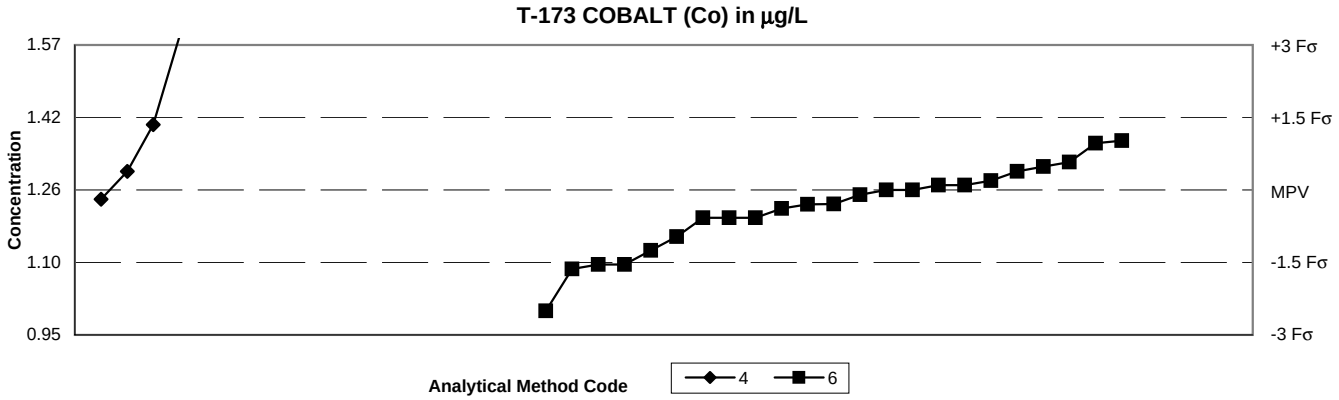
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 12 | 11 | 27 | 03 Atomic absorption: graphite furnace | **MPV =** | **1.26 µg/L** |
| Minimum = | 1.12 | 0.68 | 1.1 | 04 Inductively coupled plasma | F-pseudosigma = | 0.082 |
| Maximum = | 1.58 | 1.7 | 1.7 | 06 Inductively coupled plasma / mass spectrometry | n = | 50 |
| Median = | 1.28 | 1.18 | 1.27 | | Uh = | 1.31 |
| F-pseudosigma = | 0.093 | 0.104 | 0.067 | | Lh = | 1.20 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 4 | 0.40 | -- | -- | 1.288 | **235** | 1 | 1.90 | -- | -- | 1.41 |
| **5** | 4 | -0.43 | 1.22 | -- | -- | **247** | NR | -- | -- | <10 | -- |
| **7** | 1 | 1.53 | -- | -- | 1.38 | **256** | 0 | -7.05 | -- | 0.68 | -- |
| **8** | 2 | -1.04 | -- | -- | 1.17 | **259** | 4 | -0.06 | -- | 1.25 | -- |
| **10** | 3 | 0.55 | 1.3 | -- | -- | **265** | 1 | 1.78 | -- | -- | 1.4 |
| **12** | 3 | 0.55 | -- | 1.3 | -- | **277** | 2 | -1.29 | 1.15 | -- | -- |
| **16** | 0 | 5.46 | -- | -- | 1.7 | **304** | 3 | 0.67 | -- | -- | 1.31 |
| **18** | NR | -- | -- | <3 | -- | **307** | 3 | 0.55 | 1.3 | -- | -- |
| **23** | 0 | -2.76 | -- | 1.03 | -- | **323** | 3 | -0.67 | -- | -- | 1.2 |
| **24** | NR | -- | -- | <10 | -- | **326** | 1 | 1.78 | -- | 1.4 | -- |
| **25** | NR | -- | -- | < 8 | -- | **328** | 4 | 0.18 | -- | -- | 1.27 |
| **32** | 4 | -0.31 | -- | -- | 1.23 | **330** | 4 | -0.06 | -- | -- | 1.25 |
| **42** | 0 | -3.13 | -- | -- | <1 | **356** | 3 | 0.67 | -- | -- | 1.31 |
| **45** | 2 | -1.04 | -- | -- | 1.17 | **379** | 0 | 3.99 | 1.58 | -- | -- |
| **46** | 4 | -0.18 | 1.24 | -- | -- | **390** | 3 | 0.80 | -- | -- | 1.32 |
| **50** | 4 | -0.43 | -- | -- | 1.22 | | | | | | |
| **59** | 4 | 0.18 | -- | -- | 1.27 | | | | | | |
| **70** | 1 | 1.78 | -- | -- | 1.4 | | | | | | |
| **76** | 4 | 0.48 | -- | -- | 1.294 | | | | | | |
| **86** | 3 | -0.92 | -- | 1.18 | -- | | | | | | |
| **89** | 3 | -0.67 | 1.2 | -- | -- | | | | | | |
| **97** | 1 | 1.53 | 1.38 | -- | -- | | | | | | |
| **100** | 3 | 0.55 | 1.3 | -- | -- | | | | | | |
| **105** | 1 | -1.90 | -- | -- | 1.1 | | | | | | |
| **113** | 0 | 5.46 | -- | 1.7 | -- | | | | | | |
| **134** | 1 | -1.53 | -- | 1.13 | -- | | | | | | |
| **138** | 4 | 0.18 | -- | -- | 1.27 | | | | | | |
| **142** | 4 | -0.31 | -- | -- | 1.23 | | | | | | |
| **146** | 2 | -1.41 | -- | 1.14 | -- | | | | | | |
| **147** | 4 | -0.06 | -- | -- | 1.25 | | | | | | |
| **149** | 3 | -0.67 | -- | -- | 1.2 | | | | | | |
| **180** | 3 | -0.80 | -- | -- | 1.19 | | | | | | |
| **183** | 1 | -1.66 | 1.12 | -- | -- | | | | | | |
| **190** | 4 | 0.06 | 1.26 | -- | -- | | | | | | |
| **193** | 2 | 1.41 | 1.37 | -- | -- | | | | | | |
| **212** | 1 | 1.78 | -- | -- | 1.4 | | | | | | |
| **219** | 4 | -0.06 | -- | -- | 1.25 | | | | | | |
| **227** | 4 | -0.43 | -- | 1.22 | -- | | | | | | |
| **230** | 3 | 0.55 | -- | -- | 1.3 | | | | | | |
| **234** | 2 | -1.04 | -- | 1.17 | -- | | | | | | |

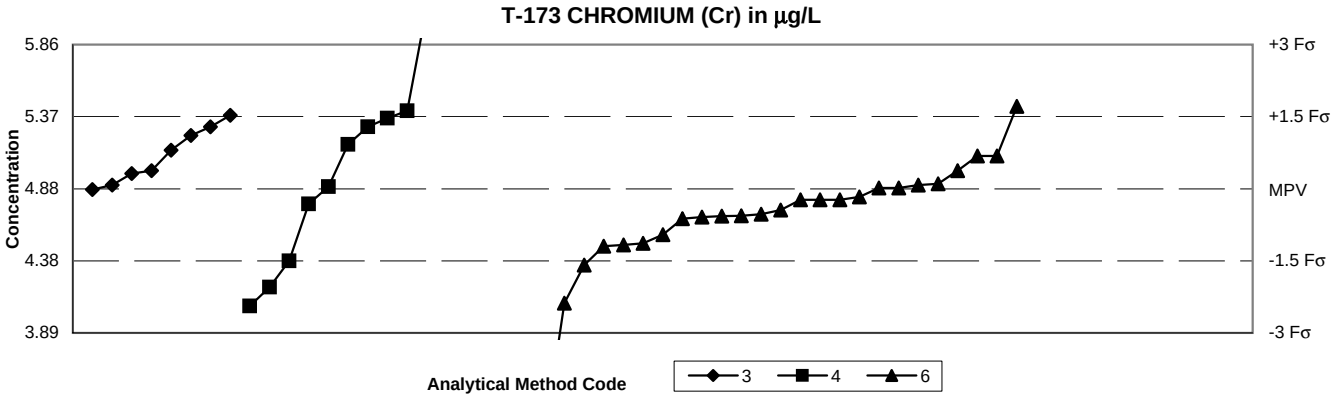
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | Methods | Statistics | |
|---|---|---|---|---|---|
| | 4 | 6 | Method Codes | | |
| n = | 8 | 23 | 04 Inductively coupled plasma | **MPV =** | **1.26 µg/L** |
| Minimum = | 1.24 | 1 | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 0.104 |
| Maximum = | 4.63 | 1.366 | | n = | 31 |
| Median = | 1.60 | 1.23 | | Uh = | 1.34 |
| F-pseudosigma = | 0.489 | 0.070 | | Lh = | 1.20 |

| | | | Method Codes | |
|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 |
| **1** | 2 | 1.02 | -- | 1.366 |
| **5** | NR | -- | <3.00 | -- |
| **7** | 4 | -0.29 | -- | 1.23 |
| **8** | 1 | -1.54 | -- | 1.1 |
| **16** | 2 | 1.35 | 1.4 | -- |
| **18** | NR | -- | <5 | -- |
| **24** | NR | -- | <9 | -- |
| **25** | NR | -- | < 4 | -- |
| **32** | 3 | 0.96 | -- | 1.36 |
| **42** | 1 | -1.64 | -- | 1.09 |
| **45** | 3 | -0.58 | -- | 1.2 |
| **50** | 4 | 0.10 | -- | 1.27 |
| **59** | 3 | -0.58 | -- | 1.2 |
| **70** | 3 | -0.58 | -- | 1.2 |
| **76** | 4 | -0.30 | -- | 1.229 |
| **86** | 0 | 3.28 | 1.6 | -- |
| **97** | 0 | 3.18 | 1.59 | -- |
| **100** | NR | -- | <10 | -- |
| **105** | NR | -- | <50 | -- |
| **134** | 4 | 0.39 | 1.3 | -- |
| **138** | 4 | 0.00 | -- | 1.26 |
| **142** | 3 | -0.96 | -- | 1.16 |
| **146** | NR | -- | <10.0 | -- |
| **149** | 0 | -2.51 | -- | 1 |
| **180** | 2 | -1.25 | -- | 1.13 |
| **212** | 4 | 0.48 | -- | 1.31 |
| **219** | 4 | 0.00 | -- | 1.26 |
| **230** | 4 | 0.39 | -- | 1.3 |
| **234** | NR | -- | <2.0 | -- |
| **235** | 4 | 0.19 | -- | 1.28 |
| **247** | NR | -- | <10 | -- |
| **256** | 4 | -0.19 | 1.24 | -- |
| **265** | 1 | -1.54 | -- | 1.1 |
| **304** | 4 | 0.10 | -- | 1.27 |
| **323** | 4 | -0.39 | -- | 1.22 |
| **326** | 0 | 7.13 | 2 | -- |
| **328** | 0 | 32.47 | 4.63 | -- |
| **356** | 3 | 0.58 | -- | 1.32 |
| **379** | 0 | 7.32 | 2.02 | -- |
| **390** | 4 | -0.10 | -- | 1.25 |

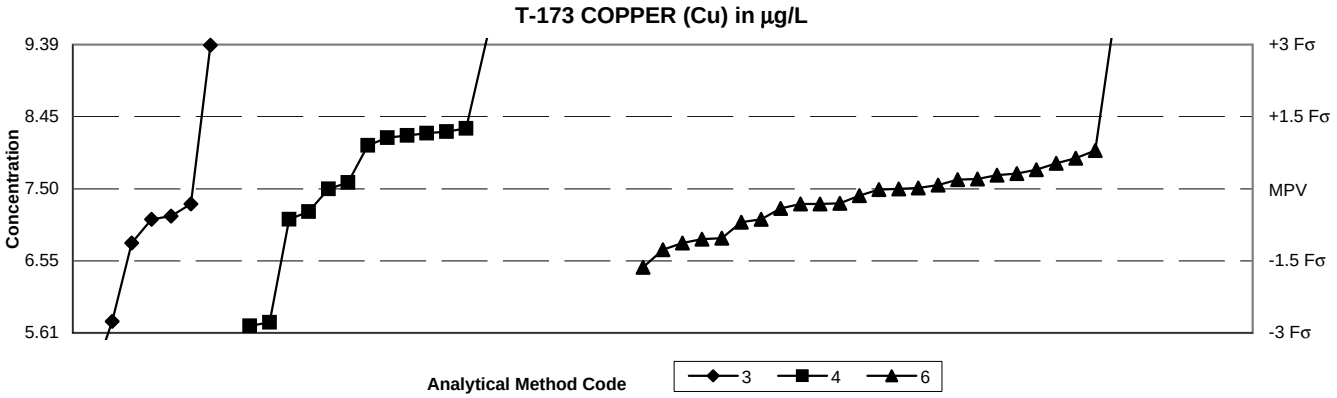
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 8 | 11 | 25 | 03 Atomic absorption: graphite furnace | **MPV =** | **4.88 µg/L** |
| Minimum = | 4.87 | 4.07 | 3.19 | 04 Inductively coupled plasma | F-pseudosigma = | 0.330 |
| Maximum = | 5.38 | 6.8 | 5.44 | 06 Inductively coupled plasma / mass spectrometry | n = | 44 |
| Median = | 5.07 | 5.18 | 4.73 | | Uh = | 5.12 |
| F-pseudosigma = | 0.245 | 0.600 | 0.237 | | Lh = | 4.68 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 4 | -0.02 | 4.87 | -- | -- | **304** | 4 | -0.17 | -- | -- | 4.82 |
| **5** | 0 | 5.84 | -- | 6.8 | -- | **307** | 3 | 0.80 | 5.14 | -- | -- |
| **7** | 3 | -0.59 | -- | -- | 4.68 | **323** | 4 | -0.23 | -- | -- | 4.8 |
| **8** | 4 | 0.02 | -- | -- | 4.88 | **328** | 4 | 0.08 | -- | -- | 4.9 |
| **10** | 4 | 0.38 | 5 | -- | -- | **330** | 1 | 1.71 | -- | -- | 5.44 |
| **16** | 2 | 1.29 | -- | 5.3 | -- | **356** | 4 | -0.44 | -- | -- | 4.73 |
| **18** | NR | -- | -- | <5 | -- | **379** | 3 | 0.92 | -- | 5.18 | -- |
| **23** | 1 | 1.62 | -- | 5.41 | -- | **390** | 4 | 0.11 | -- | -- | 4.91 |
| **24** | NR | -- | -- | <26 | -- | | | | | | |
| **25** | NR | -- | -- | < 15 | -- | | | | | | |
| **32** | 2 | -1.20 | -- | -- | 4.48 | | | | | | |
| **42** | 3 | -0.95 | -- | -- | 4.56 | | | | | | |
| **45** | 3 | -0.62 | -- | -- | 4.67 | | | | | | |
| **46** | 2 | 1.29 | 5.3 | -- | -- | | | | | | |
| **50** | 3 | 0.68 | -- | -- | 5.1 | | | | | | |
| **59** | 3 | -0.56 | -- | -- | 4.69 | | | | | | |
| **70** | 4 | -0.23 | -- | -- | 4.8 | | | | | | |
| **76** | 3 | -0.57 | -- | -- | 4.688 | | | | | | |
| **97** | 2 | 1.11 | 5.24 | -- | -- | | | | | | |
| **100** | 4 | 0.08 | 4.9 | -- | -- | | | | | | |
| **105** | 3 | 0.68 | -- | -- | 5.1 | | | | | | |
| **113** | 0 | -2.05 | -- | 4.2 | -- | | | | | | |
| **134** | 4 | -0.32 | -- | 4.77 | -- | | | | | | |
| **138** | 0 | -5.11 | -- | -- | 3.19 | | | | | | |
| **142** | 2 | -1.17 | -- | -- | 4.49 | | | | | | |
| **146** | 2 | 1.47 | -- | 5.36 | -- | | | | | | |
| **149** | 4 | 0.38 | -- | -- | 5 | | | | | | |
| **180** | 0 | -2.38 | -- | -- | 4.09 | | | | | | |
| **183** | 1 | 1.53 | 5.38 | -- | -- | | | | | | |
| **190** | 0 | -2.44 | -- | 4.07 | -- | | | | | | |
| **212** | 1 | -1.59 | -- | -- | 4.35 | | | | | | |
| **219** | 2 | -1.14 | -- | -- | 4.5 | | | | | | |
| **230** | 4 | -0.23 | -- | -- | 4.8 | | | | | | |
| **234** | 0 | 3.77 | -- | 6.12 | -- | | | | | | |
| **235** | 4 | 0.02 | -- | -- | 4.88 | | | | | | |
| **247** | NR | -- | -- | <10 | -- | | | | | | |
| **256** | 2 | -1.50 | -- | 4.38 | -- | | | | | | |
| **259** | 4 | 0.05 | -- | 4.89 | -- | | | | | | |
| **265** | 3 | -0.53 | -- | -- | 4.7 | | | | | | |
| **277** | 4 | 0.32 | 4.98 | -- | -- | | | | | | |

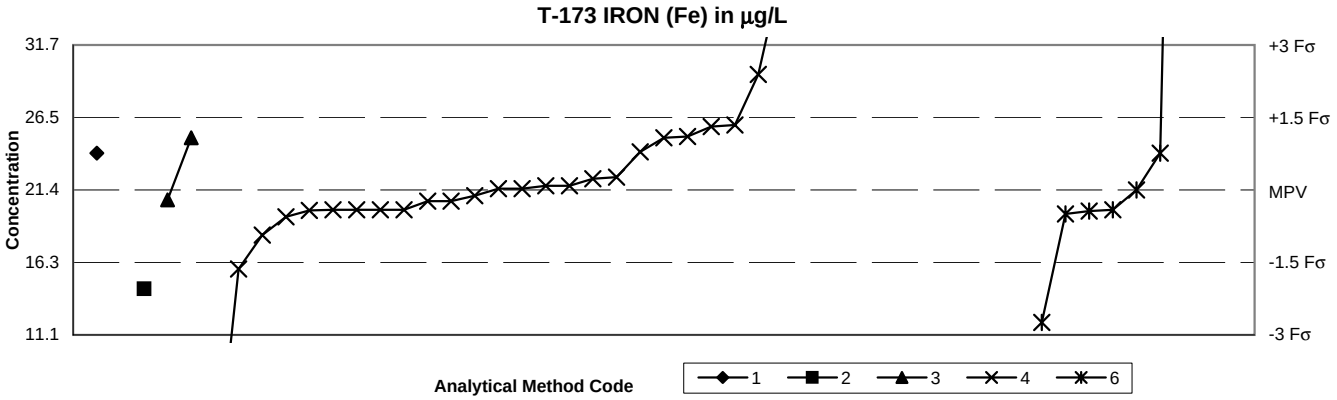
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 7 | 15 | 25 | 03 Atomic absorption: graphite furnace | **MPV =** | **7.50 µg/L** |
| Minimum = | 5 | 5.7 | 6.47 | 04 Inductively coupled plasma | F-pseudosigma = | 0.630 |
| Maximum = | 9.38 | 11.2 | 9.8 | 06 Inductively coupled plasma / mass spectrometry | n = | 47 |
| Median = | 7.10 | 8.17 | 7.49 | | Uh = | 7.95 |
| F-pseudosigma = | 0.701 | 0.682 | 0.430 | | Lh = | 7.10 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 3 | 0.53 | -- | -- | 7.833 | **247** | NR | -- | -- | <10 | -- |
| **5** | 3 | 0.90 | -- | 8.07 | -- | **256** | NR | -- | -- | <10 | -- |
| **7** | 2 | -1.13 | -- | -- | 6.79 | **265** | 2 | -1.27 | -- | -- | 6.7 |
| **8** | 2 | -1.03 | -- | -- | 6.85 | **277** | 0 | -2.76 | 5.76 | -- | -- |
| **10** | 3 | -0.63 | 7.1 | -- | -- | **304** | 4 | 0.40 | -- | -- | 7.75 |
| **12** | 2 | 1.11 | -- | 8.2 | -- | **307** | 2 | -1.13 | 6.79 | -- | -- |
| **16** | 4 | 0.00 | -- | 7.5 | -- | **323** | 4 | -0.32 | -- | -- | 7.3 |
| **18** | 0 | -2.78 | -- | 5.75 | -- | **326** | 0 | 5.87 | -- | 11.2 | -- |
| **23** | 4 | 0.13 | -- | 7.58 | -- | **327** | 0 | 3.65 | -- | -- | 9.8 |
| **24** | NR | -- | -- | <18 | -- | **328** | 4 | -0.41 | -- | -- | 7.24 |
| **25** | 0 | 3.02 | -- | 9.4 | -- | **330** | 4 | 0.32 | -- | -- | 7.7 |
| **32** | 4 | 0.29 | -- | -- | 7.68 | **356** | 4 | -0.02 | -- | -- | 7.49 |
| **42** | 0 | -2.86 | -- | 5.7 | -- | **379** | 2 | 1.06 | -- | 8.17 | -- |
| **45** | 3 | -0.70 | -- | -- | 7.06 | **390** | 4 | 0.21 | -- | -- | 7.63 |
| **46** | 3 | -0.57 | 7.14 | -- | -- | | | | | | |
| **50** | 4 | 0.00 | -- | -- | 7.5 | | | | | | |
| **59** | 4 | 0.19 | -- | -- | 7.62 | | | | | | |
| **70** | 3 | -0.63 | -- | -- | 7.1 | | | | | | |
| **76** | NR | -- | -- | -- | <20.0 | | | | | | |
| **89** | 0 | -3.97 | 5 | -- | -- | | | | | | |
| **97** | 2 | 1.25 | -- | 8.29 | -- | | | | | | |
| **100** | 0 | -3.97 | -- | <5 | -- | | | | | | |
| **105** | NR | -- | -- | <10 | -- | | | | | | |
| **113** | 0 | 4.76 | -- | 10.5 | -- | | | | | | |
| **134** | 4 | -0.48 | -- | 7.2 | -- | | | | | | |
| **138** | 4 | -0.30 | -- | -- | 7.31 | | | | | | |
| **142** | 1 | -1.63 | -- | -- | 6.47 | | | | | | |
| **146** | 3 | -0.63 | -- | 7.1 | -- | | | | | | |
| **147** | 4 | 0.08 | -- | -- | 7.55 | | | | | | |
| **149** | 3 | 0.79 | -- | -- | 8 | | | | | | |
| **180** | 2 | -1.05 | -- | -- | 6.84 | | | | | | |
| **183** | 0 | 2.98 | 9.38 | -- | -- | | | | | | |
| **190** | 4 | -0.32 | 7.3 | -- | -- | | | | | | |
| **193** | NR | -- | <12.5 | -- | -- | | | | | | |
| **212** | 4 | 0.02 | -- | -- | 7.51 | | | | | | |
| **219** | 4 | -0.32 | -- | -- | 7.3 | | | | | | |
| **227** | 2 | 1.19 | -- | 8.25 | -- | | | | | | |
| **230** | 3 | 0.63 | -- | -- | 7.9 | | | | | | |
| **234** | 2 | 1.16 | -- | 8.23 | -- | | | | | | |
| **235** | 4 | -0.14 | -- | -- | 7.41 | | | | | | |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

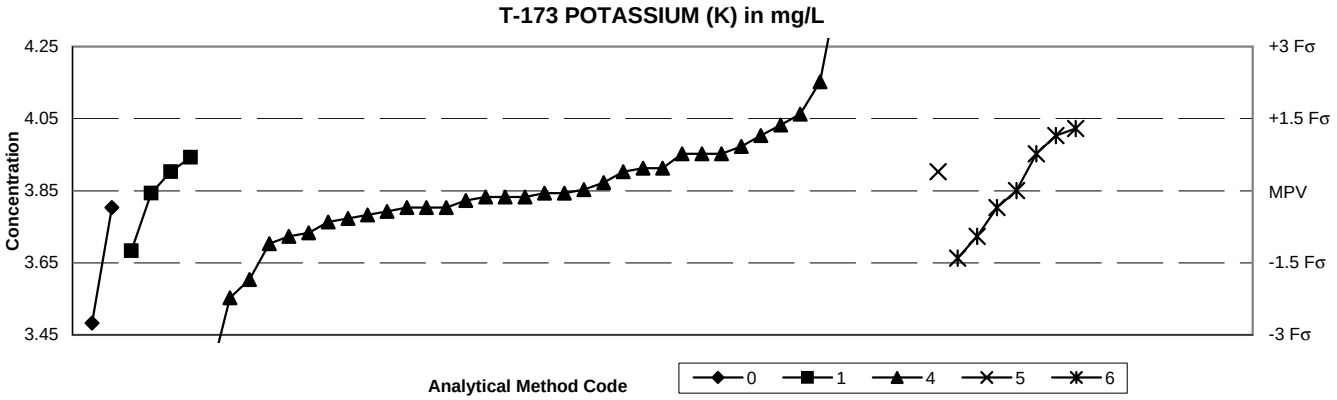



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 6 | 22 | Method Codes | | |
| n = | 1 | 1 | 2 | 27 | 7 | 1 | 01 Atomic absorption: direct, air | **MPV =** | **21.4 µg/L** |
| Minimum = | 24 | 14.39 | 20.7 | 0.03 | 12 | 0.023 | 02 Atomic absorption: direct, nitrous oxide | F-pseudosigma = | 3.43 |
| Maximum = | | | 25.1 | 49.5 | 96 | | 03 Atomic absorption: graphite furnace | n = | 39 |
| Median = | | | | 21.5 | 20.0 | | 04 Inductively coupled plasma | Uh = | 24.6 |
| F-pseudosigma = | | | | 3.82 | 2.15 | | 06 Inductively coupled plasma / mass spectrometry | Lh = | 20.0 |
| | | | | | | | 22 Colorimetric | | |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 1 | 2 | 3 | 4 | 6 | 22 |
| **1** | 3 | -0.93 | -- | -- | -- | 18.2 | -- | -- |
| **5** | 2 | 1.08 | -- | -- | -- | 25.1 | -- | -- |
| **7** | NR | -- | -- | -- | -- | <20 | -- | -- |
| **8** | NR | -- | -- | -- | -- | <50 | -- | -- |
| **10** | 3 | 0.76 | 24 | -- | -- | -- | -- | -- |
| **12** | 4 | -0.12 | -- | -- | -- | 21 | -- | -- |
| **16** | 4 | 0.03 | -- | -- | -- | 21.5 | -- | -- |
| **18** | NR | -- | -- | -- | -- | <60 | -- | -- |
| **21** | 0 | -6.24 | -- | -- | -- | -- | -- | 0.023 |
| **23** | 3 | 0.79 | -- | -- | -- | 24.1 | -- | -- |
| **24** | 0 | 2.39 | -- | -- | -- | 29.6 | -- | -- |
| **25** | 4 | -0.23 | -- | -- | -- | 20.6 | -- | -- |
| **30** | 0 | 21.76 | -- | -- | -- | -- | 96 | -- |
| **32** | 4 | 0.00 | -- | -- | -- | -- | 21.4 | -- |
| **42** | 0 | -6.23 | -- | -- | -- | 0.03 | -- | -- |
| **45** | 4 | -0.50 | -- | -- | -- | -- | 19.7 | -- |
| **46** | NR | -- | -- | -- | -- | <300 | -- | -- |
| **50** | 4 | -0.44 | -- | -- | -- | -- | 19.9 | -- |
| **59** | NR | -- | -- | -- | -- | -- | < 50 | -- |
| **70** | NR | -- | -- | -- | -- | <20 | -- | -- |
| **100** | 4 | 0.03 | -- | -- | -- | 21.5 | -- | -- |
| **105** | 4 | -0.41 | -- | -- | -- | 20 | -- | -- |
| **113** | 4 | -0.41 | -- | -- | -- | 20 | -- | -- |
| **134** | 4 | 0.09 | -- | -- | -- | 21.7 | -- | -- |
| **138** | 4 | 0.26 | -- | -- | -- | 22.3 | -- | -- |
| **142** | 4 | -0.41 | -- | -- | -- | 20 | -- | -- |
| **146** | 2 | 1.31 | -- | -- | -- | 25.9 | -- | -- |
| **149** | NR | -- | -- | -- | -- | -- | <60 | -- |
| **180** | 4 | -0.23 | -- | -- | -- | 20.6 | -- | -- |
| **190** | 4 | -0.20 | -- | -- | 20.7 | -- | -- | -- |
| **212** | 2 | 1.34 | -- | -- | -- | 26 | -- | -- |
| **219** | NR | -- | -- | -- | -- | <20 | -- | -- |
| **220** | 3 | -0.55 | -- | -- | -- | 19.5 | -- | -- |
| **230** | 0 | -2.74 | -- | -- | -- | -- | 12 | -- |
| **234** | 4 | 0.23 | -- | -- | -- | 22.2 | -- | -- |
| **235** | 2 | 1.11 | -- | -- | -- | 25.2 | -- | -- |
| **247** | NR | -- | -- | -- | -- | <50 | -- | -- |
| **256** | 0 | -2.04 | -- | 14.39 | -- | -- | -- | -- |
| **259** | 1 | -1.63 | -- | -- | -- | 15.8 | -- | -- |
| **265** | 4 | -0.41 | -- | -- | -- | -- | 20 | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 1 | 2 | 3 | 4 | 6 | 22 |
| **273** | 4 | -0.42 | -- | -- | -- | 19.95 | -- | -- |
| **277** | 2 | 1.08 | -- | -- | 25.1 | -- | -- | -- |
| **307** | NR | -- | <100 | -- | -- | -- | -- | -- |
| **323** | NR | -- | -- | -- | -- | <50 | -- | -- |
| **326** | 0 | 5.83 | -- | -- | -- | 41.4 | -- | -- |
| **328** | 0 | 4.55 | -- | -- | -- | 37 | -- | -- |
| **356** | 4 | 0.09 | -- | -- | -- | 21.7 | -- | -- |
| **379** | 4 | -0.41 | -- | -- | -- | 20 | -- | -- |
| **386** | 0 | 8.20 | -- | -- | -- | 49.5 | -- | -- |
| **390** | 3 | 0.76 | -- | -- | -- | -- | 24 | -- |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

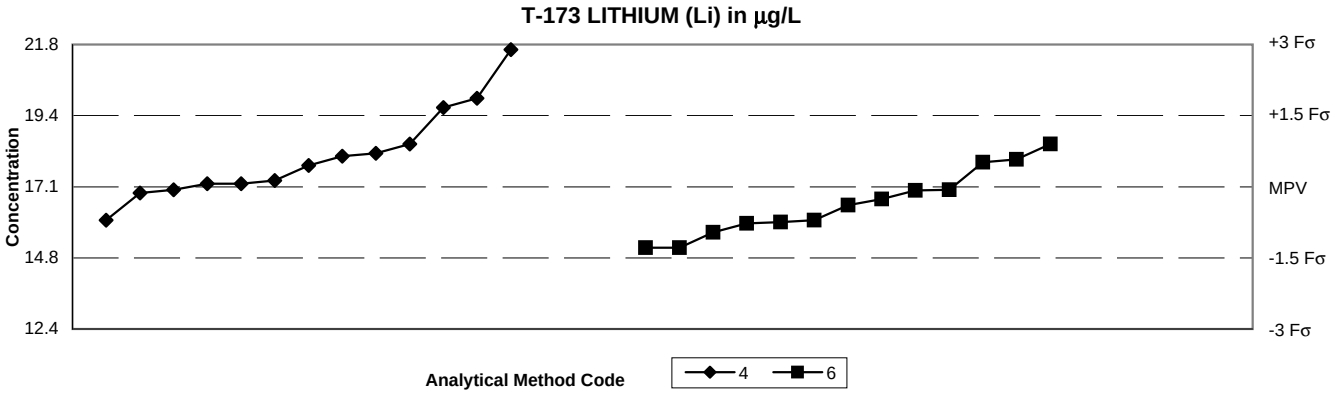



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 12 | Method Codes | | |
| n = | 2 | 4 | 37 | 1 | 7 | 2 | 00 Other | **MPV =** | **3.85 mg/L** |
| Minimum = | 3.48 | 3.68 | 3.33 | 3.9 | 3.66 | 4.33 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.133 |
| Maximum = | 3.8 | 3.94 | 9.41 | | 4.02 | 4.92 | 04 Inductively coupled plasma | Rating criterion = | 0.192 |
| Median = | | | 3.84 | | 3.85 | | 05 Direct current plasma | n = | 53 |
| F-pseudosigma = | | | 0.133 | | 0.159 | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 3.97 |
| | | | | | | | 12 Flame emission | Lh = | 3.79 |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **1** | 4 | 0.12 | -- | -- | 3.87 | -- | -- | -- |
| **5** | 0 | 3.86 | -- | -- | 4.59 | -- | -- | -- |
| **7** | 3 | 0.95 | -- | -- | 4.03 | -- | -- | -- |
| **8** | 4 | -0.09 | -- | -- | 3.83 | -- | -- | -- |
| **12** | 4 | -0.24 | -- | -- | 3.8 | -- | -- | -- |
| **16** | 3 | 0.80 | -- | -- | 4 | -- | -- | -- |
| **18** | 0 | -2.69 | -- | -- | 3.33 | -- | -- | -- |
| **23** | 4 | -0.04 | -- | -- | 3.84 | -- | -- | -- |
| **24** | 4 | 0.02 | -- | -- | 3.85 | -- | -- | -- |
| **25** | 4 | -0.09 | -- | -- | 3.83 | -- | -- | -- |
| **32** | 3 | 0.54 | -- | -- | -- | -- | 3.95 | -- |
| **33** | 4 | 0.28 | -- | -- | -- | 3.9 | -- | -- |
| **42** | 4 | -0.14 | -- | -- | 3.82 | -- | -- | -- |
| **45** | 3 | -0.66 | -- | -- | -- | -- | 3.72 | -- |
| **46** | 4 | -0.35 | -- | -- | 3.78 | -- | -- | -- |
| **50** | 3 | -0.66 | -- | -- | 3.72 | -- | -- | -- |
| **59** | 4 | -0.04 | -- | 3.84 | -- | -- | -- | -- |
| **64** | 4 | 0.48 | -- | 3.94 | -- | -- | -- | -- |
| **70** | 2 | 1.11 | -- | -- | 4.06 | -- | -- | -- |
| **76** | 4 | 0.00 | -- | -- | -- | -- | 3.847 | -- |
| **86** | 3 | 0.54 | -- | -- | 3.95 | -- | -- | -- |
| **100** | 3 | 0.64 | -- | -- | 3.97 | -- | -- | -- |
| **105** | 1 | 1.58 | -- | -- | 4.15 | -- | -- | -- |
| **110** | 3 | -0.87 | -- | 3.68 | -- | -- | -- | -- |
| **113** | 4 | -0.24 | -- | -- | 3.8 | -- | -- | -- |
| **134** | 4 | 0.28 | -- | 3.9 | -- | -- | -- | -- |
| **138** | 4 | -0.40 | -- | -- | 3.77 | -- | -- | -- |
| **142** | 4 | 0.28 | -- | -- | 3.9 | -- | -- | -- |
| **146** | 0 | 3.03 | -- | -- | 4.43 | -- | -- | -- |
| **149** | 4 | -0.24 | -- | -- | -- | -- | 3.8 | -- |
| **180** | 4 | -0.30 | -- | -- | 3.79 | -- | -- | -- |
| **190** | 1 | -1.91 | 3.48 | -- | -- | -- | -- | -- |
| **193** | 3 | -0.97 | -- | -- | -- | -- | 3.66 | -- |
| **212** | 3 | -0.61 | -- | -- | 3.73 | -- | -- | -- |
| **219** | 3 | 0.54 | -- | -- | 3.95 | -- | -- | -- |
| **220** | 4 | -0.09 | -- | -- | 3.83 | -- | -- | -- |
| **230** | 3 | 0.80 | -- | -- | -- | -- | 4 | -- |
| **234** | 4 | -0.24 | -- | -- | 3.8 | -- | -- | -- |
| **235** | 0 | 28.92 | -- | -- | 9.41 | -- | -- | -- |
| **247** | 1 | -1.54 | -- | -- | 3.55 | -- | -- | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **259** | 4 | 0.33 | -- | -- | 3.91 | -- | -- | -- |
| **265** | 3 | -0.76 | -- | -- | 3.7 | -- | -- | -- |
| **273** | 3 | 0.54 | -- | -- | 3.95 | -- | -- | -- |
| **274** | 0 | 5.58 | -- | -- | -- | -- | -- | 4.92 |
| **277** | 0 | 2.51 | -- | -- | -- | -- | -- | 4.33 |
| **279** | 4 | -0.24 | 3.8 | -- | -- | -- | -- | -- |
| **323** | 4 | -0.45 | -- | -- | 3.76 | -- | -- | -- |
| **326** | 0 | 5.32 | -- | -- | 4.87 | -- | -- | -- |
| **328** | 0 | 4.07 | -- | -- | 4.63 | -- | -- | -- |
| **330** | 4 | -0.04 | -- | -- | 3.84 | -- | -- | -- |
| **356** | 4 | 0.33 | -- | -- | 3.91 | -- | -- | -- |
| **386** | 2 | -1.28 | -- | -- | 3.6 | -- | -- | -- |
| **390** | 3 | 0.90 | -- | -- | -- | -- | 4.02 | -- |

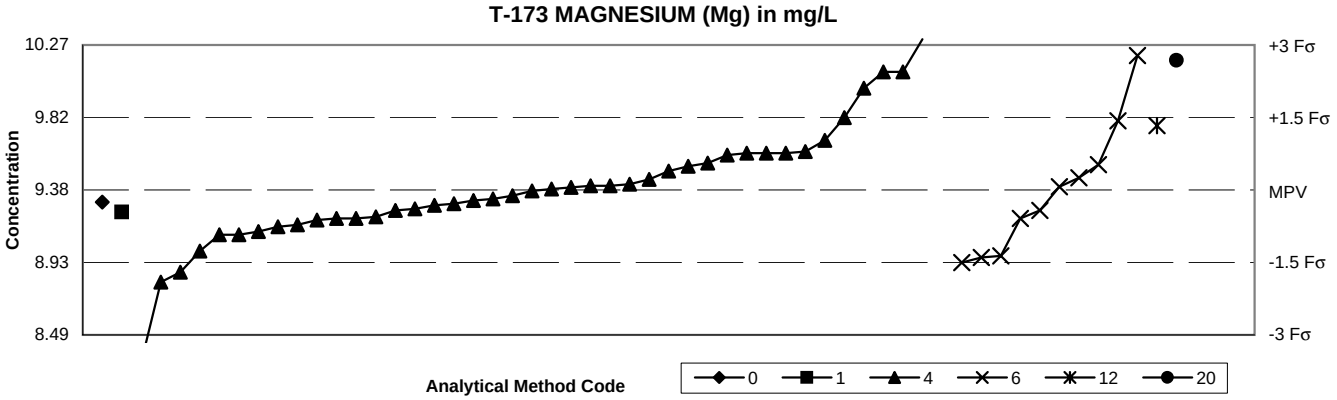
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | Methods | Statistics | |
|---|---|---|---|---|---|
| | 4 | 6 | Method Codes | | |
| n = | 13 | 13 | 04 Inductively coupled plasma | **MPV =** | **17.1 µg/L** |
| Minimum = | 16 | 15.1 | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 1.56 |
| Maximum = | 21.6 | 18.5 | | n = | 26 |
| Median = | 17.8 | 16.5 | | Uh = | 18.1 |
| F-pseudosigma = | 0.96 | 0.82 | | Lh = | 16.0 |

| | | | Method Codes | |
|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 |
| **1** | 3 | -0.75 | -- | 15.94 |
| **5** | 4 | 0.06 | 17.2 | -- |
| **7** | NR | -- | <20 | -- |
| **8** | 2 | -1.28 | -- | 15.1 |
| **25** | 3 | -0.71 | 16 | -- |
| **32** | 4 | -0.06 | -- | 17 |
| **42** | 4 | -0.13 | 16.9 | -- |
| **50** | 3 | 0.90 | -- | 18.5 |
| **59** | 4 | -0.26 | -- | 16.7 |
| **76** | 4 | -0.08 | -- | 16.98 |
| **86** | 4 | 0.06 | 17.2 | -- |
| **100** | 0 | -10.95 | <0.05 | -- |
| **105** | NR | -- | <25 | -- |
| **134** | 4 | 0.45 | 17.8 | -- |
| **142** | 3 | 0.71 | 18.2 | -- |
| **212** | 3 | 0.64 | 18.1 | -- |
| **219** | 4 | -0.39 | -- | 16.5 |
| **230** | 3 | 0.58 | -- | 18 |
| **234** | 1 | 1.67 | 19.7 | -- |
| **235** | 2 | -1.28 | -- | 15.1 |
| **247** | 1 | 1.86 | 20 | -- |
| **256** | 4 | 0.13 | 17.3 | -- |
| **265** | 3 | -0.71 | -- | 16 |
| **273** | 3 | 0.90 | 18.5 | -- |
| **304** | 3 | -0.77 | -- | 15.9 |
| **323** | 4 | -0.06 | 17 | -- |
| **326** | 0 | 2.89 | 21.6 | -- |
| **328** | 3 | -0.96 | -- | 15.6 |
| **390** | 3 | 0.51 | -- | 17.9 |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

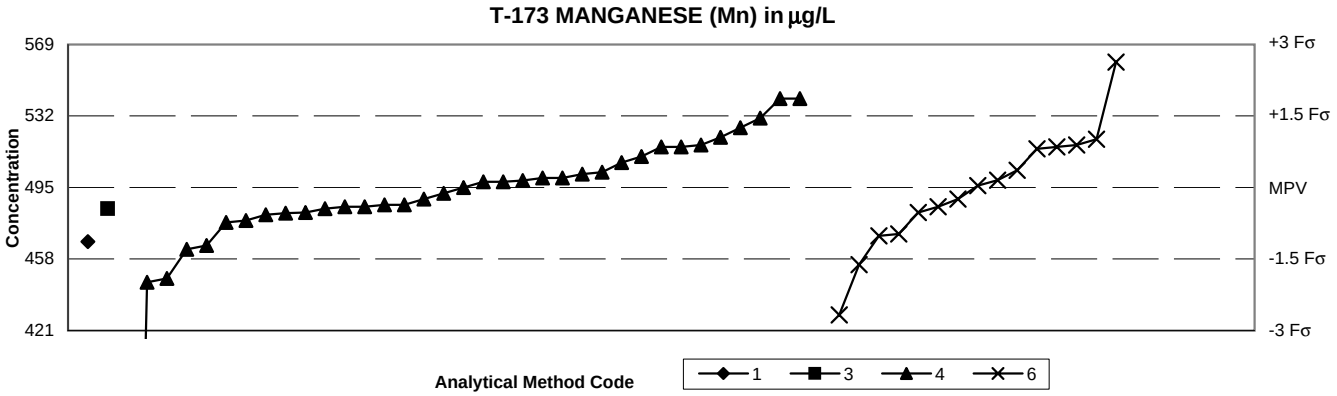



| SUMMARY | Methods | | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 12 | 20 | Method Codes | |
| n = | 1 | 1 | 41 | 1 | 10 | 1 | 1 | 00 Other | **MPV = 9.38 mg/L** |
| Minimum = | 9.3 | 9.24 | 8.32 | 11.54 | 8.93 | 9.77 | 10.17 | 01 Atomic absorption: direct, air | F-pseudosigma = 0.2965 |
| Maximum = | | | 10.3 | | 10.2 | | | 04 Inductively coupled plasma | Rating criterion = 0.469 |
| Median = | | | 9.37 | | 9.32 | | | 05 Direct current plasma | n = 56 |
| F-pseudosigma = | | | 0.289 | | 0.415 | | | 06 Inductively coupled plasma / mass spectrometry | Uh = 9.60 |
| | | | | | | | | 12 Flame emission | Lh = 9.20 |
| | | | | | | | | 20 Titration: colorimetric | |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 | 20 |
| **1** | 4 | -0.27 | -- | -- | 9.25 | -- | -- | -- | -- |
| **5** | 4 | -0.35 | -- | -- | 9.21 | -- | -- | -- | -- |
| **7** | 3 | -0.86 | -- | -- | -- | -- | 8.97 | -- | -- |
| **8** | 4 | -0.37 | -- | -- | 9.2 | -- | -- | -- | -- |
| **12** | 4 | 0.25 | -- | -- | 9.49 | -- | -- | -- | -- |
| **16** | 3 | -0.59 | -- | -- | 9.1 | -- | -- | -- | -- |
| **18** | 0 | -2.25 | -- | -- | 8.32 | -- | -- | -- | -- |
| **23** | 3 | 0.65 | -- | -- | 9.68 | -- | -- | -- | -- |
| **24** | 4 | -0.39 | -- | -- | 9.19 | -- | -- | -- | -- |
| **25** | 4 | -0.20 | -- | -- | 9.28 | -- | -- | -- | -- |
| **30** | 3 | 0.91 | -- | -- | -- | -- | 9.8 | -- | -- |
| **32** | 4 | 0.16 | -- | -- | -- | -- | 9.45 | -- | -- |
| **33** | 0 | 4.62 | -- | -- | -- | 11.54 | -- | -- | -- |
| **42** | 3 | -0.80 | -- | -- | 9 | -- | -- | -- | -- |
| **45** | 3 | -0.89 | -- | -- | -- | -- | 8.96 | -- | -- |
| **46** | 4 | -0.25 | -- | -- | 9.26 | -- | -- | -- | -- |
| **50** | 4 | 0.05 | -- | -- | 9.4 | -- | -- | -- | -- |
| **59** | 4 | -0.29 | -- | 9.24 | -- | -- | -- | -- | -- |
| **64** | 4 | -0.37 | -- | -- | 9.2 | -- | -- | -- | -- |
| **70** | 4 | 0.50 | -- | -- | 9.61 | -- | -- | -- | -- |
| **76** | 4 | 0.04 | -- | -- | -- | -- | 9.395 | -- | -- |
| **86** | 4 | 0.14 | -- | -- | 9.44 | -- | -- | -- | -- |
| **97** | 4 | 0.03 | -- | -- | 9.39 | -- | -- | -- | -- |
| **100** | 4 | -0.01 | -- | -- | 9.37 | -- | -- | -- | -- |
| **105** | 1 | 1.97 | -- | -- | 10.3 | -- | -- | -- | -- |
| **110** | 4 | -0.18 | -- | -- | 9.29 | -- | -- | -- | -- |
| **113** | 4 | 0.05 | -- | -- | 9.4 | -- | -- | -- | -- |
| **134** | 4 | -0.48 | -- | -- | 9.15 | -- | -- | -- | -- |
| **138** | 4 | -0.12 | -- | -- | 9.32 | -- | -- | -- | -- |
| **142** | 4 | 0.31 | -- | -- | 9.52 | -- | -- | -- | -- |
| **146** | 2 | 1.33 | -- | -- | 10 | -- | -- | -- | -- |
| **149** | 4 | -0.37 | -- | -- | -- | -- | 9.2 | -- | -- |
| **180** | 4 | -0.27 | -- | -- | -- | -- | 9.25 | -- | -- |
| **190** | 1 | 1.55 | -- | -- | 10.1 | -- | -- | -- | -- |
| **193** | 3 | -0.95 | -- | -- | -- | -- | 8.93 | -- | -- |
| **212** | 4 | -0.14 | -- | -- | 9.31 | -- | -- | -- | -- |
| **219** | 4 | -0.07 | -- | -- | 9.34 | -- | -- | -- | -- |
| **220** | 3 | -0.54 | -- | -- | 9.12 | -- | -- | -- | -- |
| **227** | 4 | 0.48 | -- | -- | 9.6 | -- | -- | -- | -- |
| **230** | 4 | 0.33 | -- | -- | -- | -- | 9.53 | -- | -- |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 | 20 |
| **234** | 4 | 0.48 | -- | -- | 9.6 | -- | -- | -- | -- |
| **235** | 4 | 0.46 | -- | -- | 9.59 | -- | -- | -- | -- |
| **247** | 2 | -1.08 | -- | -- | 8.87 | -- | -- | -- | -- |
| **259** | 4 | 0.48 | -- | -- | 9.6 | -- | -- | -- | -- |
| **265** | 3 | -0.59 | -- | -- | 9.1 | -- | -- | -- | -- |
| **273** | 3 | 0.95 | -- | -- | 9.82 | -- | -- | -- | -- |
| **274** | 1 | 1.70 | -- | -- | -- | -- | -- | -- | 10.17 |
| **277** | 3 | 0.84 | -- | -- | -- | -- | -- | 9.77 | -- |
| **279** | 4 | -0.16 | 9.3 | -- | -- | -- | -- | -- | -- |
| **323** | 4 | 0.01 | -- | -- | 9.38 | -- | -- | -- | -- |
| **326** | 4 | -0.46 | -- | -- | 9.16 | -- | -- | -- | -- |
| **328** | 1 | 1.55 | -- | -- | 10.1 | -- | -- | -- | -- |
| **330** | 4 | 0.07 | -- | -- | 9.41 | -- | -- | -- | -- |
| **356** | 4 | 0.35 | -- | -- | 9.54 | -- | -- | -- | -- |
| **386** | 2 | -1.21 | -- | -- | 8.81 | -- | -- | -- | -- |
| **390** | 1 | 1.76 | -- | -- | -- | -- | 10.2 | -- | -- |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

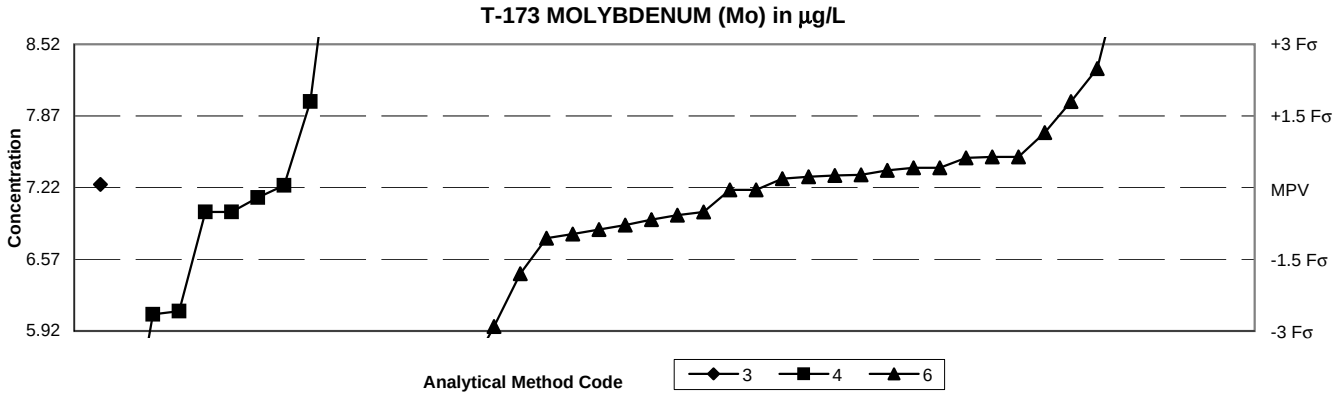



| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 3 | 4 | 5 | 6 | Method Codes | | |
| n = | 1 | 1 | 35 | 1 | 15 | 01 Atomic absorption: direct, air | **MPV =** | **495 µg/L** |
| Minimum = | 467 | 484 | 0.499 | 631 | 429 | 03 Atomic absorption: graphite furnace | F-pseudosigma = | 24.7 |
| Maximum = | | | 541 | | 560 | 04 Inductively coupled plasma | Rating criterion = | 24.8 |
| Median = | | | 495 | | 496 | 05 Direct current plasma | n = | 53 |
| F-pseudosigma = | | | 20.5 | | 28.9 | 06 Inductively coupled plasma / mass spectrometry | Uh = | 515 |
| | | | | | | | Lh = | 482 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 1 | 3 | 4 | 5 | 6 |
| **1** | 4 | 0.15 | -- | -- | -- | -- | 498.8 |
| **5** | 3 | 0.65 | -- | -- | 511 | -- | -- |
| **7** | 3 | -0.53 | -- | -- | -- | -- | 482 |
| **8** | 3 | -0.73 | -- | -- | 477 | -- | -- |
| **10** | 2 | -1.13 | 467 | -- | -- | -- | -- |
| **12** | 3 | -0.53 | -- | -- | 482 | -- | -- |
| **16** | 3 | -0.69 | -- | -- | 478 | -- | -- |
| **18** | 2 | -1.21 | -- | -- | 465 | -- | -- |
| **23** | 4 | -0.40 | -- | -- | 485 | -- | -- |
| **24** | 2 | 1.05 | -- | -- | 521 | -- | -- |
| **25** | 3 | -0.54 | -- | -- | 481.7 | -- | -- |
| **30** | 0 | 2.63 | -- | -- | -- | -- | 560 |
| **32** | 3 | 0.81 | -- | -- | -- | -- | 515 |
| **33** | 0 | 5.49 | -- | -- | -- | 631 | -- |
| **42** | 0 | -19.98 | -- | -- | 0.499 | -- | -- |
| **45** | 4 | 0.04 | -- | -- | -- | -- | 496 |
| **46** | 4 | 0.28 | -- | -- | 502 | -- | -- |
| **50** | 2 | -1.01 | -- | -- | -- | -- | 470 |
| **59** | 1 | -1.62 | -- | -- | -- | -- | 455 |
| **70** | 3 | 0.85 | -- | -- | -- | -- | 516 |
| **86** | 4 | -0.12 | -- | -- | 492 | -- | -- |
| **97** | 4 | -0.44 | -- | -- | 484 | -- | -- |
| **100** | 3 | 0.85 | -- | -- | 516 | -- | -- |
| **105** | 1 | 1.86 | -- | -- | 541 | -- | -- |
| **113** | 4 | -0.36 | -- | -- | 486 | -- | -- |
| **134** | 4 | 0.20 | -- | -- | 500 | -- | -- |
| **138** | 2 | -1.29 | -- | -- | 463 | -- | -- |
| **142** | 4 | 0.32 | -- | -- | 503 | -- | -- |
| **146** | 2 | 1.25 | -- | -- | 526 | -- | -- |
| **149** | 2 | 1.01 | -- | -- | -- | -- | 520 |
| **180** | 0 | -2.67 | -- | -- | -- | -- | 429 |
| **190** | 3 | 0.89 | -- | -- | 517 | -- | -- |
| **212** | 4 | -0.36 | -- | -- | 486 | -- | -- |
| **219** | 4 | -0.24 | -- | -- | -- | -- | 489 |
| **220** | 3 | -0.57 | -- | -- | 481 | -- | -- |
| **230** | 4 | 0.36 | -- | -- | -- | -- | 504 |
| **234** | 4 | 0.12 | -- | -- | 498 | -- | -- |
| **235** | 3 | -0.97 | -- | -- | -- | -- | 471 |
| **247** | 4 | 0.20 | -- | -- | 500 | -- | -- |
| **256** | 1 | -1.98 | -- | -- | 446 | -- | -- |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 1 | 3 | 4 | 5 | 6 |
| **259** | 3 | 0.53 | -- | -- | 508 | -- | -- |
| **265** | 4 | -0.40 | -- | -- | 485 | -- | -- |
| **273** | 2 | 1.45 | -- | -- | 531 | -- | -- |
| **304** | 4 | -0.40 | -- | -- | -- | -- | 485 |
| **307** | 4 | -0.44 | -- | 484 | -- | -- | -- |
| **323** | 4 | 0.12 | -- | -- | 498 | -- | -- |
| **326** | 4 | 0.15 | -- | -- | 498.7 | -- | -- |
| **328** | 1 | 1.86 | -- | -- | 541 | -- | -- |
| **330** | 4 | 0.00 | -- | -- | 495 | -- | -- |
| **356** | 3 | 0.85 | -- | -- | 516 | -- | -- |
| **379** | 4 | -0.24 | -- | -- | 489 | -- | -- |
| **386** | 1 | -1.90 | -- | -- | 448 | -- | -- |
| **390** | 3 | 0.89 | -- | -- | -- | -- | 517 |

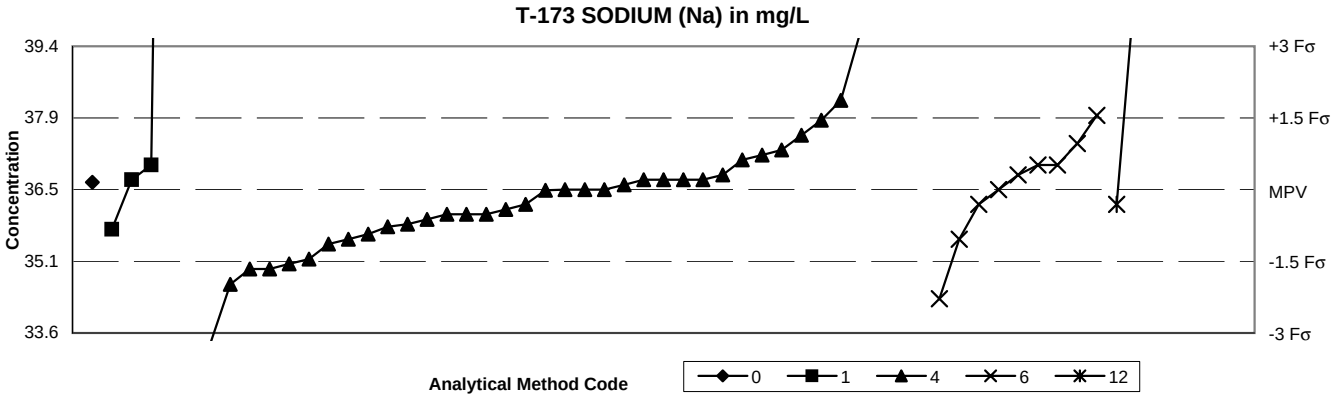
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 1 | 9 | 26 | 03 Atomic absorption: graphite furnace | **MPV =** | **7.22 µg/L** |
| Minimum = | 7.25 | 4.71 | 5.52 | 04 Inductively coupled plasma | F-pseudosigma = | 0.434 |
| Maximum = | | 9.87 | 9.24 | 06 Inductively coupled plasma / mass spectrometry | n = | 36 |
| Median = | | 7.00 | 7.31 | | Uh = | 7.45 |
| F-pseudosigma = | | 0.845 | 0.452 | | Lh = | 6.86 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 4 | 0.27 | -- | -- | 7.336 |
| **5** | NR | -- | -- | <10.0 | -- |
| **7** | 0 | -2.91 | -- | -- | 5.96 |
| **8** | 4 | -0.05 | -- | -- | 7.2 |
| **12** | 1 | 1.80 | -- | 8 | -- |
| **16** | 4 | -0.51 | -- | 7 | -- |
| **23** | 0 | 6.11 | -- | 9.87 | -- |
| **24** | NR | -- | -- | <17 | -- |
| **32** | 3 | -0.97 | -- | -- | 6.8 |
| **42** | 2 | -1.06 | -- | -- | 6.76 |
| **45** | 3 | -0.88 | -- | -- | 6.84 |
| **50** | 3 | -0.78 | -- | -- | 6.88 |
| **59** | 1 | -1.80 | -- | -- | 6.44 |
| **70** | 4 | 0.42 | -- | -- | 7.4 |
| **76** | 4 | 0.36 | -- | -- | 7.377 |
| **97** | 0 | -5.79 | -- | 4.71 | -- |
| **100** | NR | -- | -- | <25 | -- |
| **105** | 1 | 1.80 | -- | -- | 8 |
| **113** | 0 | -2.58 | -- | 6.1 | -- |
| **134** | 4 | -0.51 | -- | 7 | -- |
| **138** | 0 | -3.92 | -- | -- | 5.52 |
| **142** | 3 | -0.58 | -- | -- | 6.97 |
| **146** | 4 | -0.21 | -- | 7.13 | -- |
| **149** | 4 | -0.51 | -- | -- | 7 |
| **180** | 2 | 1.15 | -- | -- | 7.72 |
| **183** | 4 | 0.07 | 7.25 | -- | -- |
| **212** | 3 | -0.67 | -- | -- | 6.93 |
| **219** | 0 | 2.49 | -- | -- | 8.3 |
| **230** | 4 | 0.42 | -- | -- | 7.4 |
| **234** | 0 | -2.65 | -- | 6.07 | -- |
| **235** | 4 | 0.23 | -- | -- | 7.32 |
| **247** | NR | -- | -- | <40 | -- |
| **259** | 4 | 0.05 | -- | 7.24 | -- |
| **265** | 3 | 0.65 | -- | -- | 7.5 |
| **304** | 4 | -0.05 | -- | -- | 7.2 |
| **323** | 3 | 0.65 | -- | -- | 7.5 |
| **328** | 0 | 4.66 | -- | -- | 9.24 |
| **330** | 4 | 0.18 | -- | -- | 7.3 |
| **356** | 4 | 0.25 | -- | -- | 7.33 |
| **390** | 3 | 0.62 | -- | -- | 7.49 |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

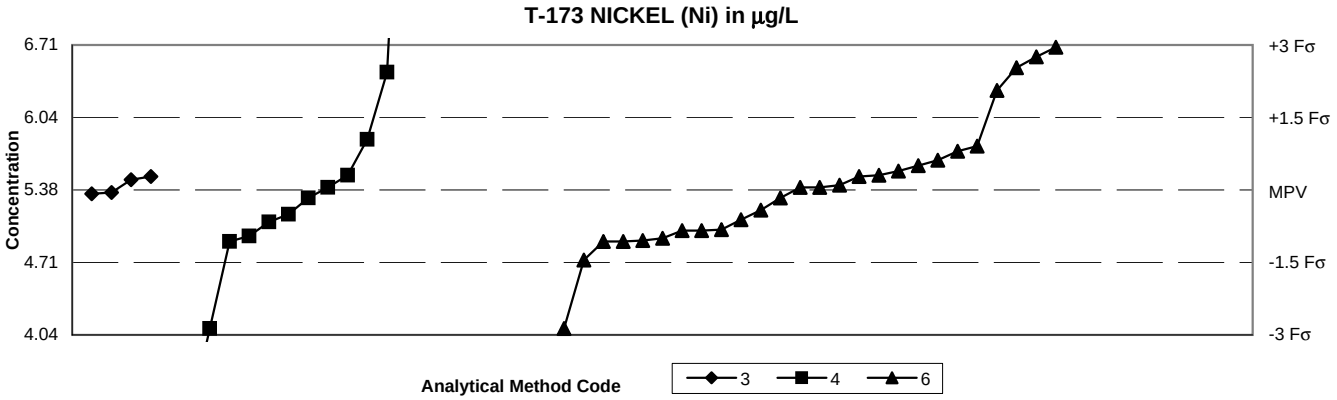



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 12 | Method Codes | | |
| n = | 1 | 4 | 37 | 1 | 9 | 2 | 00 Other | **MPV =** | **36.5 mg/L** |
| Minimum = | 36.65 | 35.7 | 33.3 | 31.93 | 34.3 | 36.2 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.96 |
| Maximum = | | 64.36 | 40.8 | | 38 | 40.96 | 04 Inductively coupled plasma | Rating criterion = | 1.83 |
| Median = | | | 36.5 | | 36.8 | | 05 Direct current plasma | n = | 54 |
| F-pseudosigma = | | | 0.89 | | 0.59 | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 37.0 |
| | | | | | | | 12 Flame emission | Lh = | 35.7 |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **1** | 4 | -0.27 | -- | -- | 36 | -- | -- | -- |
| **5** | 4 | 0.33 | -- | -- | 37.1 | -- | -- | -- |
| **7** | 4 | -0.27 | -- | -- | 36 | -- | -- | -- |
| **8** | 4 | -0.49 | -- | -- | 35.6 | -- | -- | -- |
| **12** | 3 | -0.60 | -- | -- | 35.4 | -- | -- | -- |
| **16** | 3 | -0.82 | -- | -- | 35 | -- | -- | -- |
| **18** | 1 | -1.70 | -- | -- | 33.4 | -- | -- | -- |
| **23** | 4 | 0.05 | -- | -- | 36.6 | -- | -- | -- |
| **24** | 3 | -0.77 | -- | -- | 35.1 | -- | -- | -- |
| **25** | 4 | -0.01 | -- | -- | 36.49 | -- | -- | -- |
| **30** | 3 | 0.82 | -- | -- | -- | -- | 38 | -- |
| **32** | 4 | -0.16 | -- | -- | -- | -- | 36.2 | -- |
| **33** | 0 | -2.50 | -- | -- | -- | 31.93 | -- | -- |
| **42** | 3 | -0.88 | -- | -- | 34.9 | -- | -- | -- |
| **45** | 4 | 0.16 | -- | -- | -- | -- | 36.8 | -- |
| **46** | 4 | 0.11 | -- | -- | 36.7 | -- | -- | -- |
| **50** | 4 | 0.00 | -- | -- | -- | -- | 36.5 | -- |
| **59** | 4 | 0.11 | -- | 36.7 | -- | -- | -- | -- |
| **64** | 4 | 0.27 | -- | 37 | -- | -- | -- | -- |
| **70** | 4 | -0.27 | -- | -- | 36 | -- | -- | -- |
| **76** | 4 | 0.51 | -- | -- | -- | -- | 37.43 | -- |
| **86** | 4 | 0.00 | -- | -- | 36.5 | -- | -- | -- |
| **100** | 3 | 0.99 | -- | -- | 38.3 | -- | -- | -- |
| **105** | 1 | 1.75 | -- | -- | 39.7 | -- | -- | -- |
| **110** | 0 | 15.27 | -- | 64.36 | -- | -- | -- | -- |
| **113** | 4 | 0.16 | -- | -- | 36.8 | -- | -- | -- |
| **134** | 4 | -0.44 | -- | 35.7 | -- | -- | -- | -- |
| **138** | 4 | 0.38 | -- | -- | 37.2 | -- | -- | -- |
| **142** | 4 | 0.44 | -- | -- | 37.3 | -- | -- | -- |
| **146** | 0 | 2.36 | -- | -- | 40.8 | -- | -- | -- |
| **149** | 4 | 0.27 | -- | -- | -- | -- | 37 | -- |
| **180** | 4 | -0.33 | -- | -- | 35.9 | -- | -- | -- |
| **190** | 4 | 0.00 | -- | -- | 36.5 | -- | -- | -- |
| **193** | 2 | -1.21 | -- | -- | -- | -- | 34.3 | -- |
| **212** | 4 | -0.22 | -- | -- | 36.1 | -- | -- | -- |
| **219** | 4 | 0.00 | -- | -- | 36.5 | -- | -- | -- |
| **220** | 2 | -1.05 | -- | -- | 34.59 | -- | -- | -- |
| **230** | 4 | 0.27 | -- | -- | -- | -- | 37 | -- |
| **234** | 4 | 0.11 | -- | -- | 36.7 | -- | -- | -- |
| **235** | 3 | -0.88 | -- | -- | 34.9 | -- | -- | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **247** | 4 | -0.38 | -- | -- | 35.8 | -- | -- | -- |
| **259** | 4 | 0.11 | -- | -- | 36.7 | -- | -- | -- |
| **265** | 3 | -0.55 | -- | -- | 35.5 | -- | -- | -- |
| **273** | 4 | -0.41 | -- | -- | 35.75 | -- | -- | -- |
| **274** | 0 | 2.44 | -- | -- | -- | -- | -- | 40.96 |
| **277** | 4 | -0.16 | -- | -- | -- | -- | -- | 36.2 |
| **279** | 4 | 0.08 | 36.65 | -- | -- | -- | -- | -- |
| **323** | 4 | -0.16 | -- | -- | 36.2 | -- | -- | -- |
| **326** | 4 | 0.11 | -- | -- | 36.7 | -- | -- | -- |
| **328** | 0 | 2.14 | -- | -- | 40.4 | -- | -- | -- |
| **330** | 3 | 0.77 | -- | -- | 37.9 | -- | -- | -- |
| **356** | 3 | 0.60 | -- | -- | 37.6 | -- | -- | -- |
| **386** | 1 | -1.75 | -- | -- | 33.3 | -- | -- | -- |
| **390** | 3 | -0.55 | -- | -- | -- | -- | 35.5 | -- |

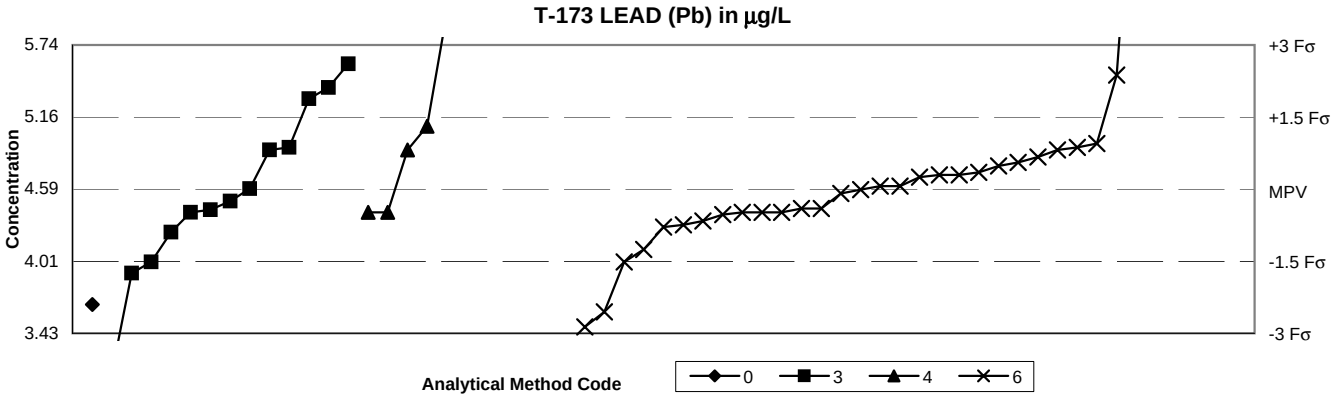
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 4 | 12 | 26 | 03 Atomic absorption: graphite furnace | **MPV =** | **5.38 µg/L** |
| Minimum = | 5.34 | 3.3 | 4.1 | 04 Inductively coupled plasma | F-pseudosigma = | 0.445 |
| Maximum = | 5.5 | 9.9 | 6.689 | 06 Inductively coupled plasma / mass spectrometry | n = | 42 |
| Median = | | 5.23 | 5.40 | | Uh = | 5.60 |
| F-pseudosigma = | | 0.556 | 0.482 | | Lh = | 5.00 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 0 | 2.95 | -- | -- | 6.689 | **277** | 4 | -0.08 | 5.34 | -- | -- |
| **5** | NR | -- | -- | <10.0 | -- | **304** | 4 | 0.39 | -- | -- | 5.55 |
| **7** | 4 | -0.17 | -- | -- | 5.3 | **307** | 4 | 0.28 | 5.5 | -- | -- |
| **8** | 4 | 0.28 | -- | -- | 5.5 | **323** | 2 | -1.07 | -- | -- | 4.9 |
| **12** | 2 | -1.07 | -- | 4.9 | -- | **326** | 4 | -0.17 | -- | 5.3 | -- |
| **16** | 2 | -1.07 | -- | -- | 4.9 | **328** | 3 | 0.80 | -- | -- | 5.73 |
| **18** | NR | -- | -- | <5 | -- | **330** | 0 | 2.06 | -- | -- | 6.29 |
| **23** | 3 | -0.66 | -- | 5.08 | -- | **356** | 4 | 0.51 | -- | -- | 5.6 |
| **24** | NR | -- | -- | <16 | -- | **379** | 0 | 2.44 | -- | 6.46 | -- |
| **25** | 0 | 10.17 | -- | 9.9 | -- | **390** | 3 | -0.62 | -- | -- | 5.1 |
| **32** | 0 | 2.53 | -- | -- | 6.5 | | | | | | |
| **42** | 3 | -1.00 | -- | -- | 4.93 | | | | | | |
| **45** | 2 | -1.05 | -- | -- | 4.91 | | | | | | |
| **46** | NR | -- | -- | <50 | -- | | | | | | |
| **50** | 3 | 0.62 | -- | -- | 5.65 | | | | | | |
| **59** | 4 | 0.30 | -- | -- | 5.51 | | | | | | |
| **70** | 0 | 2.75 | -- | -- | 6.6 | | | | | | |
| **76** | 4 | -0.42 | -- | -- | 5.188 | | | | | | |
| **97** | 2 | 1.05 | -- | 5.84 | -- | | | | | | |
| **100** | NR | -- | -- | <15 | -- | | | | | | |
| **105** | NR | -- | -- | <50 | -- | | | | | | |
| **113** | 0 | -4.67 | -- | 3.3 | -- | | | | | | |
| **134** | 4 | 0.06 | -- | 5.4 | -- | | | | | | |
| **138** | 4 | 0.10 | -- | -- | 5.42 | | | | | | |
| **142** | 4 | 0.06 | -- | -- | 5.4 | | | | | | |
| **146** | 4 | -0.51 | -- | 5.15 | -- | | | | | | |
| **149** | 3 | -0.84 | -- | -- | 5 | | | | | | |
| **180** | 3 | -0.82 | -- | -- | 5.01 | | | | | | |
| **183** | 4 | -0.06 | 5.35 | -- | -- | | | | | | |
| **190** | 4 | 0.21 | 5.47 | -- | -- | | | | | | |
| **193** | NR | -- | <12.5 | -- | -- | | | | | | |
| **212** | 2 | -1.45 | -- | -- | 4.73 | | | | | | |
| **219** | 4 | 0.06 | -- | -- | 5.4 | | | | | | |
| **230** | 0 | -2.87 | -- | -- | 4.1 | | | | | | |
| **234** | 4 | 0.30 | -- | 5.51 | -- | | | | | | |
| **235** | 3 | 0.91 | -- | -- | 5.78 | | | | | | |
| **247** | NR | -- | -- | <50 | -- | | | | | | |
| **256** | 0 | -2.87 | -- | 4.1 | -- | | | | | | |
| **259** | 3 | -0.96 | -- | 4.95 | -- | | | | | | |
| **265** | 3 | -0.84 | -- | -- | 5 | | | | | | |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

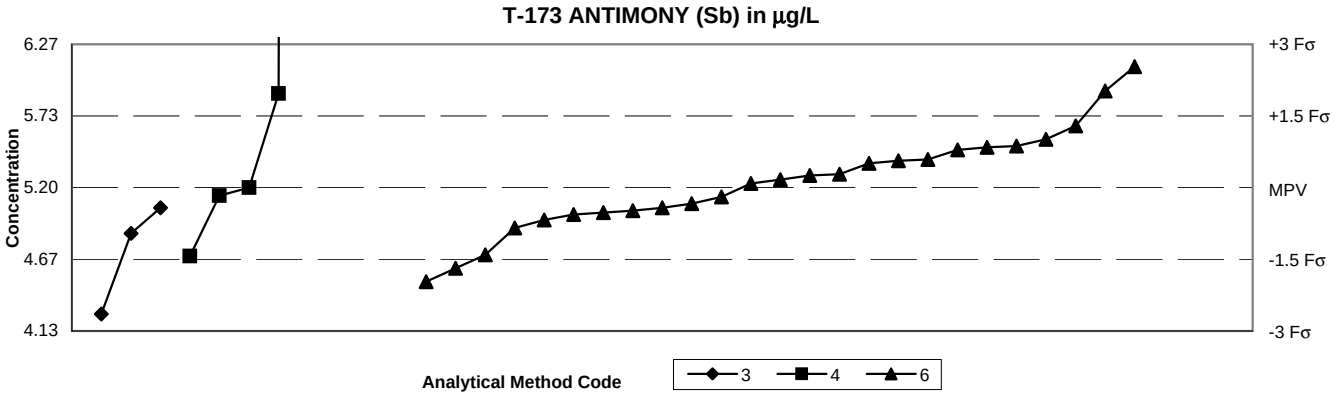



| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 0 | 3 | 4 | 6 | Method Codes | | |
| n = | 1 | 13 | 7 | 29 | 00 Other | **MPV =** | **4.59 µg/L** |
| Minimum = | 3.66 | 3.11 | 4.4 | 3.48 | 03 Atomic absorption: graphite furnace | F-pseudosigma = | 0.385 |
| Maximum = | | 5.59 | 55 | 7.65 | 04 Inductively coupled plasma | n = | 50 |
| Median = | | 4.49 | 5.09 | 4.58 | 06 Inductively coupled plasma / mass spectrometry | Uh = | 4.90 |
| F-pseudosigma = | | 0.504 | 1.11 | 0.289 | | Lh = | 4.38 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 3 | 4 | 6 |
| **1** | 3 | -0.79 | -- | -- | -- | 4.28 |
| **5** | 4 | -0.43 | -- | 4.42 | -- | -- |
| **7** | 3 | -0.66 | -- | -- | -- | 4.33 |
| **8** | 4 | -0.48 | -- | -- | -- | 4.4 |
| **10** | 1 | -1.52 | -- | 4 | -- | -- |
| **12** | 0 | 3.67 | -- | -- | 6 | -- |
| **16** | 4 | 0.30 | -- | -- | -- | 4.7 |
| **18** | 0 | 7.95 | -- | -- | -- | 7.65 |
| **23** | 0 | 130.79 | -- | -- | 55 | -- |
| **24** | NR | -- | -- | -- | <43 | -- |
| **25** | NR | -- | -- | -- | < 20 | -- |
| **32** | 4 | -0.09 | -- | -- | -- | 4.55 |
| **42** | 0 | -2.87 | -- | -- | -- | 3.48 |
| **45** | 3 | -0.74 | -- | -- | -- | 4.3 |
| **46** | 3 | 0.87 | -- | 4.92 | -- | -- |
| **50** | 4 | 0.25 | -- | -- | -- | 4.68 |
| **59** | 4 | -0.40 | -- | -- | -- | 4.43 |
| **70** | 4 | -0.48 | -- | -- | -- | 4.4 |
| **76** | 3 | 0.67 | -- | -- | -- | 4.843 |
| **89** | 3 | -0.90 | -- | 4.24 | -- | -- |
| **97** | 1 | -1.75 | -- | 3.91 | -- | -- |
| **100** | 4 | -0.25 | -- | 4.49 | -- | -- |
| **105** | 3 | 0.56 | -- | -- | -- | 4.8 |
| **113** | 3 | 0.82 | -- | 4.9 | -- | -- |
| **134** | 4 | -0.48 | -- | -- | 4.4 | -- |
| **138** | 3 | -0.53 | -- | -- | -- | 4.38 |
| **142** | 0 | -2.56 | -- | -- | -- | 3.6 |
| **146** | 0 | 4.45 | -- | -- | 6.3 | -- |
| **147** | 4 | 0.35 | -- | -- | -- | 4.72 |
| **149** | 1 | -1.52 | -- | -- | -- | 4 |
| **180** | 4 | -0.40 | -- | -- | -- | 4.43 |
| **183** | 0 | -3.83 | -- | 3.11 | -- | -- |
| **190** | 4 | -0.48 | -- | 4.4 | -- | -- |
| **193** | 0 | 2.11 | -- | 5.4 | -- | -- |
| **212** | 4 | 0.48 | -- | -- | -- | 4.77 |
| **219** | 2 | -1.26 | -- | -- | -- | 4.1 |
| **227** | NR | -- | -- | -- | <4.70 | -- |
| **230** | 4 | 0.30 | -- | -- | -- | 4.7 |
| **234** | 4 | 0.01 | -- | 4.59 | -- | -- |
| **235** | 3 | 0.87 | -- | -- | -- | 4.92 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 3 | 4 | 6 |
| **247** | NR | -- | -- | -- | <40 | -- |
| **256** | 2 | 1.31 | -- | -- | 5.09 | -- |
| **259** | 3 | 0.82 | -- | -- | 4.9 | -- |
| **265** | 4 | -0.48 | -- | -- | -- | 4.4 |
| **277** | 0 | 2.61 | -- | 5.59 | -- | -- |
| **304** | 3 | 0.95 | -- | -- | -- | 4.95 |
| **307** | 1 | 1.88 | -- | 5.31 | -- | -- |
| **323** | 3 | 0.82 | -- | -- | -- | 4.9 |
| **326** | 4 | -0.48 | -- | -- | 4.4 | -- |
| **328** | 4 | 0.06 | -- | -- | -- | 4.61 |
| **330** | 4 | 0.06 | -- | -- | -- | 4.61 |
| **356** | 0 | 2.37 | -- | -- | -- | 5.5 |
| **379** | 0 | -2.40 | 3.66 | -- | -- | -- |
| **390** | 4 | -0.01 | -- | -- | -- | 4.58 |

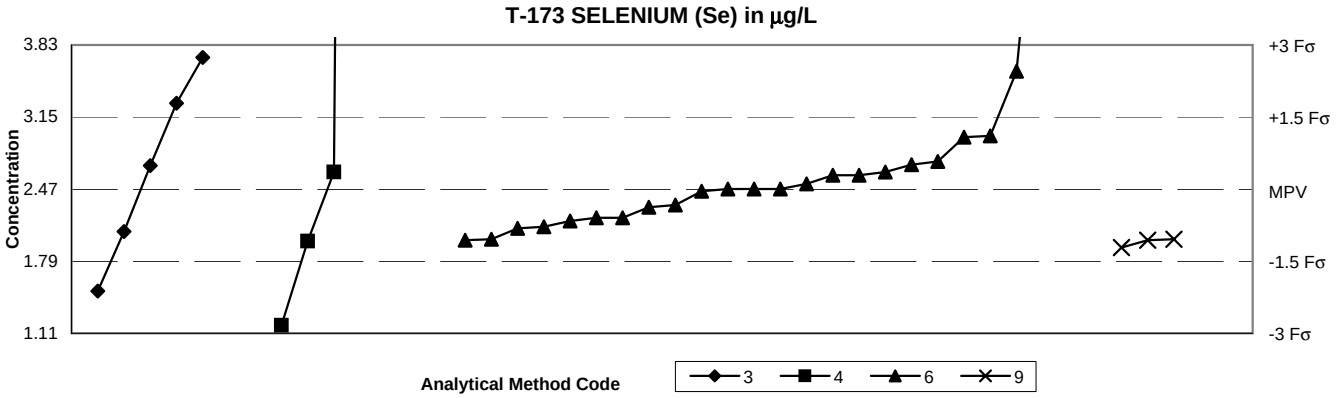
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 3 | 5 | 25 | 03 Atomic absorption: graphite furnace | **MPV =** | **5.20 µg/L** |
| Minimum = | 4.26 | 4.69 | 4.5 | 04 Inductively coupled plasma | F-pseudosigma = | 0.356 |
| Maximum = | 5.05 | 220 | 6.1 | 06 Inductively coupled plasma / mass spectrometry | n = | 33 |
| Median = | | 5.20 | 5.26 | | Uh = | 5.48 |
| F-pseudosigma = | | 0.563 | 0.346 | | Lh = | 5.00 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 3 | -0.53 | -- | -- | 5.013 |
| **5** | NR | -- | -- | <20.0 | -- |
| **7** | 4 | 0.25 | -- | -- | 5.29 |
| **8** | 1 | -1.97 | -- | -- | 4.5 |
| **16** | 4 | 0.00 | -- | 5.2 | -- |
| **18** | 0 | 2.02 | -- | -- | 5.92 |
| **23** | 0 | 603.68 | -- | 220 | -- |
| **25** | NR | -- | -- | < 50 | -- |
| **32** | 3 | -0.84 | -- | -- | 4.9 |
| **42** | 3 | -0.67 | -- | -- | 4.96 |
| **45** | 1 | -1.69 | -- | -- | 4.6 |
| **50** | 4 | -0.34 | -- | -- | 5.08 |
| **59** | 3 | 0.59 | -- | -- | 5.41 |
| **70** | 0 | 2.53 | -- | -- | 6.1 |
| **76** | 4 | -0.48 | -- | -- | 5.029 |
| **97** | 0 | -2.64 | 4.26 | -- | -- |
| **100** | 4 | -0.42 | 5.05 | -- | -- |
| **105** | 3 | 0.56 | -- | -- | 5.4 |
| **134** | 3 | -0.96 | 4.86 | -- | -- |
| **138** | 4 | 0.51 | -- | -- | 5.38 |
| **142** | 3 | 0.87 | -- | -- | 5.51 |
| **146** | 1 | 1.97 | -- | 5.9 | -- |
| **149** | 2 | -1.41 | -- | -- | 4.7 |
| **180** | 2 | 1.01 | -- | -- | 5.56 |
| **212** | 4 | 0.08 | -- | -- | 5.23 |
| **219** | 3 | 0.79 | -- | -- | 5.48 |
| **234** | 4 | -0.17 | -- | 5.14 | -- |
| **235** | 2 | 1.29 | -- | -- | 5.66 |
| **247** | NR | -- | -- | <200 | -- |
| **256** | 2 | -1.43 | -- | 4.69 | -- |
| **265** | 3 | -0.56 | -- | -- | 5 |
| **304** | 4 | -0.20 | -- | -- | 5.13 |
| **323** | 4 | 0.28 | -- | -- | 5.3 |
| **328** | 3 | 0.84 | -- | -- | 5.5 |
| **330** | 4 | -0.42 | -- | -- | 5.05 |
| **356** | 4 | 0.17 | -- | -- | 5.26 |

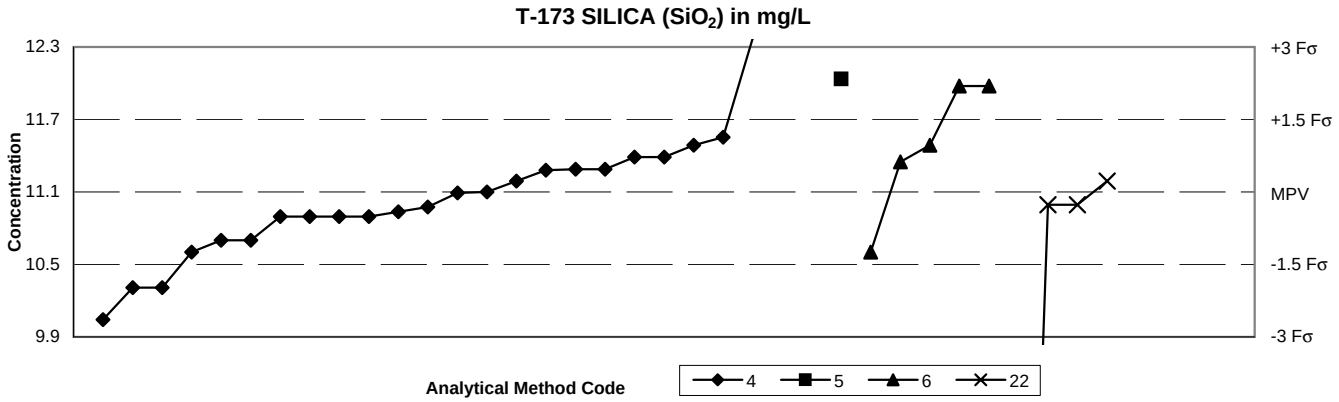
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | 9 | Method Codes | | |
| n = | 5 | 4 | 23 | 3 | 03 Atomic absorption: graphite furnace | **MPV =** | **2.47 µg/L** |
| Minimum = | 1.51 | 1.19 | 1.99 | 1.92 | 04 Inductively coupled plasma | F-pseudosigma = | 0.452 |
| Maximum = | 3.71 | 32.1 | 6.1 | 2 | 06 Inductively coupled plasma / mass spectrometry | n = | 35 |
| Median = | 2.69 | | 2.47 | | 09 Atomic fluorescence | Uh = | 2.70 |
| F-pseudosigma = | 0.897 | | 0.345 | | | Lh = | 2.09 |

| | | | Method Codes | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 | 9 | **Lab** | Rating | Z-value | 3 | 4 | 6 | 9 |
| **1** | 3 | -0.78 | -- | -- | 2.116 | -- | **356** | 2 | 1.08 | -- | -- | 2.96 | -- |
| **5** | 0 | -2.12 | 1.51 | -- | -- | -- | **379** | 0 | 2.74 | 3.71 | -- | -- | -- |
| **7** | 3 | -0.82 | -- | -- | 2.1 | -- | | | | | | | |
| **8** | 3 | -0.60 | -- | -- | 2.2 | -- | | | | | | | |
| **10** | 2 | -1.04 | -- | -- | -- | 2 | | | | | | | |
| **16** | 0 | 8.03 | -- | -- | 6.1 | -- | | | | | | | |
| **18** | 2 | -1.06 | -- | -- | 1.99 | -- | | | | | | | |
| **23** | 0 | -2.83 | -- | 1.19 | -- | -- | | | | | | | |
| **25** | NR | -- | -- | < 16 | -- | -- | | | | | | | |
| **32** | 0 | 2.45 | -- | -- | 3.58 | -- | | | | | | | |
| **42** | 4 | 0.51 | -- | -- | 2.7 | -- | | | | | | | |
| **45** | 3 | -0.66 | -- | -- | 2.17 | -- | | | | | | | |
| **50** | 4 | 0.00 | -- | -- | 2.47 | -- | | | | | | | |
| **59** | 3 | 0.57 | -- | -- | 2.73 | -- | | | | | | | |
| **70** | 4 | 0.29 | -- | -- | 2.6 | -- | | | | | | | |
| **97** | NR | -- | <1.78 | -- | -- | -- | | | | | | | |
| **100** | 4 | 0.49 | 2.69 | -- | -- | -- | | | | | | | |
| **105** | NR | -- | -- | -- | <7 | -- | | | | | | | |
| **134** | 4 | 0.35 | -- | 2.63 | -- | -- | | | | | | | |
| **138** | 4 | 0.00 | -- | -- | 2.47 | -- | | | | | | | |
| **142** | 4 | 0.35 | -- | -- | 2.63 | -- | | | | | | | |
| **146** | NR | -- | -- | <10.0 | -- | -- | | | | | | | |
| **149** | NR | -- | -- | -- | <3 | -- | | | | | | | |
| **180** | 4 | 0.00 | -- | -- | 2.47 | -- | | | | | | | |
| **190** | 3 | -0.88 | 2.07 | -- | -- | -- | | | | | | | |
| **212** | 4 | -0.33 | -- | -- | 2.32 | -- | | | | | | | |
| **219** | 3 | -0.60 | -- | -- | 2.2 | -- | | | | | | | |
| **230** | 4 | 0.29 | -- | -- | 2.6 | -- | | | | | | | |
| **234** | NR | -- | <5.0 | -- | -- | -- | | | | | | | |
| **235** | 2 | -1.06 | -- | -- | -- | 1.99 | | | | | | | |
| **247** | NR | -- | -- | <100 | -- | -- | | | | | | | |
| **256** | 2 | -1.22 | -- | -- | -- | 1.92 | | | | | | | |
| **259** | 2 | -1.08 | -- | 1.98 | -- | -- | | | | | | | |
| **265** | 4 | -0.38 | -- | -- | 2.3 | -- | | | | | | | |
| **273** | 0 | 65.53 | -- | 32.1 | -- | -- | | | | | | | |
| **304** | 4 | 0.11 | -- | -- | 2.52 | -- | | | | | | | |
| **307** | 1 | 1.79 | 3.28 | -- | -- | -- | | | | | | | |
| **323** | 2 | -1.04 | -- | -- | 2 | -- | | | | | | | |
| **328** | 4 | -0.04 | -- | -- | 2.45 | -- | | | | | | | |
| **330** | 2 | 1.11 | -- | -- | 2.97 | -- | | | | | | | |

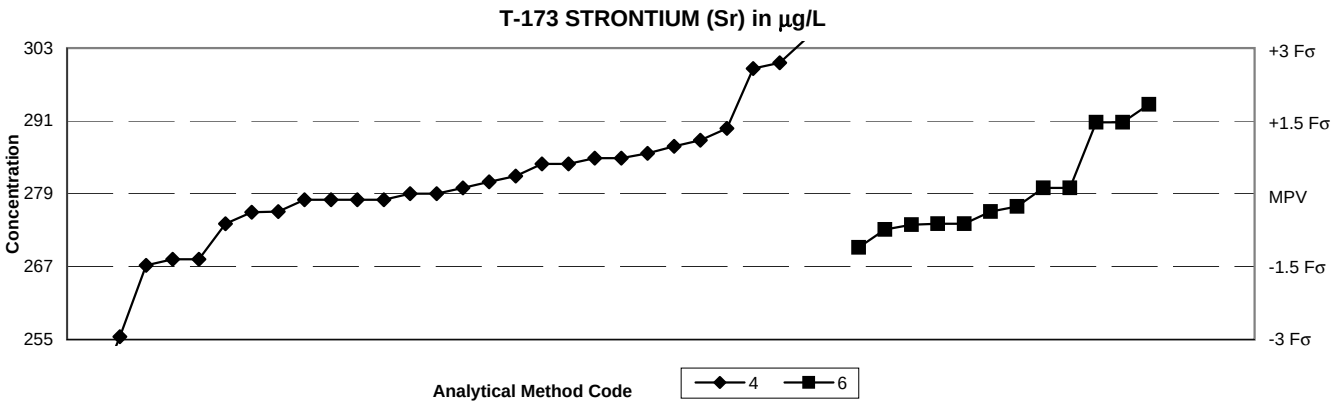
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|---|
| | 4 | 5 | 6 | 22 | Method Codes | | |
| n = | 25 | 1 | 5 | 4 | 04 Inductively coupled plasma | **MPV =** | **11.1 mg/L** |
| Minimum = | 10.03 | 12.06 | 10.6 | 3.95 | 05 Direct current plasma | F-pseudosigma = | 0.41 |
| Maximum = | 22.5 | | 12 | 11.2 | 06 Inductively coupled plasma / mass spectrometry | Rating criterion = | 0.56 |
| Median = | 11.1 | | 11.5 | | 22 Colorimetric | n = | 35 |
| F-pseudosigma = | 0.37 | | 0.47 | | | Uh = | 11.5 |
| | | | | | | Lh = | 10.9 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 5 | 6 | 22 |
| **1** | 4 | -0.37 | 10.9 | -- | -- | -- |
| **5** | 3 | 0.53 | 11.4 | -- | -- | -- |
| **7** | 1 | -1.94 | 10.03 | -- | -- | -- |
| **8** | 3 | -0.91 | 10.6 | -- | -- | -- |
| **24** | 3 | 0.53 | 11.4 | -- | -- | -- |
| **25** | 3 | 0.83 | 11.57 | -- | -- | -- |
| **30** | 1 | 1.61 | -- | -- | 12 | -- |
| **32** | 3 | 0.71 | -- | -- | 11.5 | -- |
| **33** | 1 | 1.72 | -- | 12.06 | -- | -- |
| **42** | 2 | -1.45 | 10.3 | -- | -- | -- |
| **45** | 3 | -0.91 | -- | -- | 10.6 | -- |
| **50** | 3 | -0.73 | 10.7 | -- | -- | -- |
| **64** | 4 | -0.37 | 10.9 | -- | -- | -- |
| **70** | 4 | 0.17 | -- | -- | -- | 11.2 |
| **100** | 0 | 3.05 | 12.8 | -- | -- | -- |
| **105** | 4 | 0.00 | 11.11 | -- | -- | -- |
| **110** | 4 | -0.23 | 10.98 | -- | -- | -- |
| **134** | 4 | -0.30 | 10.94 | -- | -- | -- |
| **142** | 3 | 0.71 | 11.5 | -- | -- | -- |
| **190** | 4 | -0.19 | -- | -- | -- | 11 |
| **212** | 4 | 0.35 | 11.3 | -- | -- | -- |
| **219** | 4 | 0.33 | 11.29 | -- | -- | -- |
| **230** | 1 | 1.61 | -- | -- | 12 | -- |
| **234** | 4 | 0.35 | 11.3 | -- | -- | -- |
| **235** | 0 | 2.33 | 12.4 | -- | -- | -- |
| **256** | 3 | -0.73 | 10.7 | -- | -- | -- |
| **259** | 4 | 0.17 | 11.2 | -- | -- | -- |
| **265** | 2 | -1.45 | 10.3 | -- | -- | -- |
| **274** | 0 | -12.89 | -- | -- | -- | 3.95 |
| **323** | 4 | -0.37 | 10.9 | -- | -- | -- |
| **327** | 4 | -0.19 | -- | -- | -- | 11 |
| **328** | 4 | -0.01 | 11.1 | -- | -- | -- |
| **356** | 4 | -0.37 | 10.9 | -- | -- | -- |
| **386** | 0 | 20.51 | 22.5 | -- | -- | -- |
| **390** | 4 | 0.46 | -- | -- | 11.36 | -- |

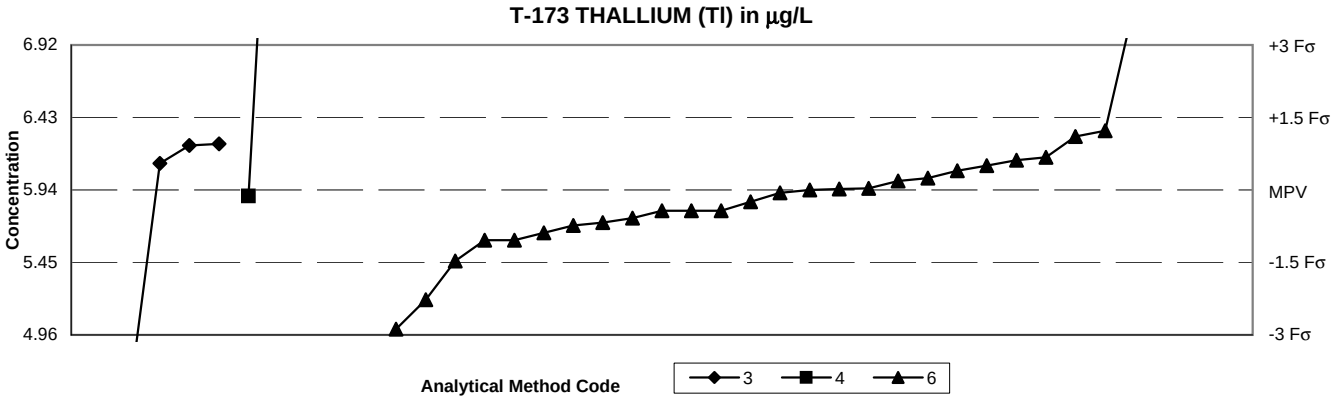
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|
| | 4 | 5 | 6 | Method Codes | | |
| n = | 28 | 1 | 12 | 04 Inductively coupled plasma | **MPV =** | **279 µg/L** |
| Minimum = | 244 | 252.2 | 270 | 05 Direct current plasma | F-pseudosigma = | 8.2 |
| Maximum = | 305 | | 294 | 06 Inductively coupled plasma / mass spectrometry | Rating criterion = | 14.0 |
| Median = | 280 | | 276 | | n = | 41 |
| F-pseudosigma = | 7.0 | | 8.6 | | Uh = | 285 |
| | | | | | Lh = | 274 |

| | | | Method Codes | | | | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 5 | 6 | **Lab** | Rating | Z-value | 4 | 5 | 6 |
| **1** | 4 | -0.15 | -- | -- | 276.9 | **390** | 3 | 0.86 | -- | -- | 291 |
| **5** | 4 | 0.00 | 279 | -- | -- | | | | | | |
| **7** | 4 | -0.07 | 278 | -- | -- | | | | | | |
| **8** | 4 | -0.36 | -- | -- | 274 | | | | | | |
| **16** | 4 | 0.07 | 280 | -- | -- | | | | | | |
| **18** | 1 | -1.72 | 255 | -- | -- | | | | | | |
| **24** | 4 | 0.22 | 282 | -- | -- | | | | | | |
| **25** | 4 | 0.49 | 285.8 | -- | -- | | | | | | |
| **32** | 4 | -0.22 | -- | -- | 276 | | | | | | |
| **33** | 1 | -1.92 | -- | 252.2 | -- | | | | | | |
| **42** | 1 | 1.58 | 301 | -- | -- | | | | | | |
| **50** | 3 | -0.65 | -- | -- | 270 | | | | | | |
| **59** | 4 | 0.07 | -- | -- | 280 | | | | | | |
| **70** | 4 | -0.07 | 278 | -- | -- | | | | | | |
| **76** | 4 | -0.37 | -- | -- | 273.8 | | | | | | |
| **86** | 4 | -0.07 | 278 | -- | -- | | | | | | |
| **97** | 4 | 0.36 | 284 | -- | -- | | | | | | |
| **100** | 3 | 0.57 | 287 | -- | -- | | | | | | |
| **105** | 4 | 0.43 | 285 | -- | -- | | | | | | |
| **113** | 3 | -0.79 | 268 | -- | -- | | | | | | |
| **134** | 4 | -0.22 | 275.9 | -- | -- | | | | | | |
| **138** | 4 | -0.36 | 274 | -- | -- | | | | | | |
| **142** | 4 | 0.14 | 281 | -- | -- | | | | | | |
| **147** | 4 | -0.43 | -- | -- | 273 | | | | | | |
| **190** | 4 | 0.43 | 285 | -- | -- | | | | | | |
| **212** | 1 | 1.86 | 305 | -- | -- | | | | | | |
| **219** | 4 | 0.00 | 279 | -- | -- | | | | | | |
| **230** | 2 | 1.08 | -- | -- | 294 | | | | | | |
| **234** | 4 | -0.22 | 276 | -- | -- | | | | | | |
| **235** | 4 | -0.36 | -- | -- | 274 | | | | | | |
| **247** | 2 | 1.51 | 300 | -- | -- | | | | | | |
| **256** | 3 | -0.86 | 267 | -- | -- | | | | | | |
| **259** | 3 | 0.65 | 288 | -- | -- | | | | | | |
| **265** | 3 | -0.79 | 268 | -- | -- | | | | | | |
| **273** | 3 | 0.79 | 290 | -- | -- | | | | | | |
| **304** | 4 | 0.07 | -- | -- | 280 | | | | | | |
| **323** | 4 | -0.07 | 278 | -- | -- | | | | | | |
| **326** | 4 | 0.36 | 284 | -- | -- | | | | | | |
| **328** | 0 | -2.51 | 244 | -- | -- | | | | | | |
| **356** | 3 | 0.86 | -- | -- | 291 | | | | | | |

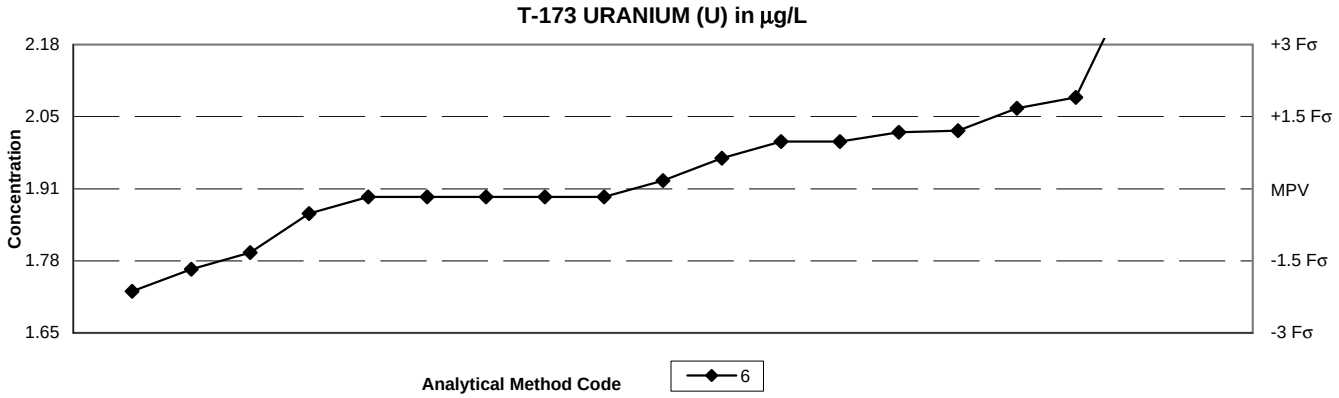
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 6 | Method Codes | | |
| n = | 5 | 3 | 27 | 03 Atomic absorption: graphite furnace | **MPV =** | **5.94 µg/L** |
| Minimum = | 4.43 | 5.9 | 5 | 04 Inductively coupled plasma | F-pseudosigma = | 0.326 |
| Maximum = | 6.25 | 110 | 9.66 | 06 Inductively coupled plasma / mass spectrometry | n = | 35 |
| Median = | 6.12 | | 5.92 | | Uh = | 6.15 |
| F-pseudosigma = | 1.22 | | 0.280 | | Lh = | 5.71 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 3 | 4 | 6 |
| **1** | 4 | 0.02 | -- | -- | 5.946 |
| **7** | 2 | -1.47 | -- | -- | 5.46 |
| **8** | 3 | -0.74 | -- | -- | 5.7 |
| **16** | 4 | -0.43 | -- | -- | 5.8 |
| **18** | 0 | 11.41 | -- | -- | 9.66 |
| **23** | 0 | 319.04 | -- | 110 | -- |
| **25** | NR | -- | -- | < 51 | -- |
| **32** | 2 | -1.04 | -- | -- | 5.6 |
| **42** | 4 | 0.25 | -- | -- | 6.02 |
| **45** | 3 | -0.67 | -- | -- | 5.72 |
| **50** | 3 | -0.58 | -- | -- | 5.75 |
| **59** | 4 | 0.03 | -- | -- | 5.95 |
| **70** | 2 | -1.04 | -- | -- | 5.6 |
| **76** | 4 | 0.51 | -- | -- | 6.105 |
| **97** | 3 | 0.95 | 6.25 | -- | -- |
| **100** | 0 | -4.63 | 4.43 | -- | -- |
| **105** | 4 | 0.18 | -- | -- | 6 |
| **113** | 0 | -4.11 | 4.6 | -- | -- |
| **134** | 3 | 0.55 | 6.12 | -- | -- |
| **138** | 3 | 0.67 | -- | -- | 6.16 |
| **142** | 4 | -0.43 | -- | -- | 5.8 |
| **146** | 4 | -0.12 | -- | 5.9 | -- |
| **149** | 0 | -2.88 | -- | -- | 5 |
| **180** | 3 | -0.89 | -- | -- | 5.65 |
| **212** | 2 | 1.23 | -- | -- | 6.34 |
| **219** | 0 | -2.27 | -- | -- | 5.2 |
| **230** | 2 | 1.10 | -- | -- | 6.3 |
| **234** | 3 | 0.92 | 6.24 | -- | -- |
| **235** | 4 | 0.40 | -- | -- | 6.07 |
| **247** | NR | -- | -- | <50 | -- |
| **265** | 4 | -0.43 | -- | -- | 5.8 |
| **304** | 4 | -0.25 | -- | -- | 5.86 |
| **323** | 3 | 0.61 | -- | -- | 6.14 |
| **328** | 4 | 0.00 | -- | -- | 5.94 |
| **330** | 4 | -0.06 | -- | -- | 5.92 |
| **356** | 0 | 3.86 | -- | -- | 7.2 |
| **379** | 0 | 10.67 | -- | 9.42 | -- |

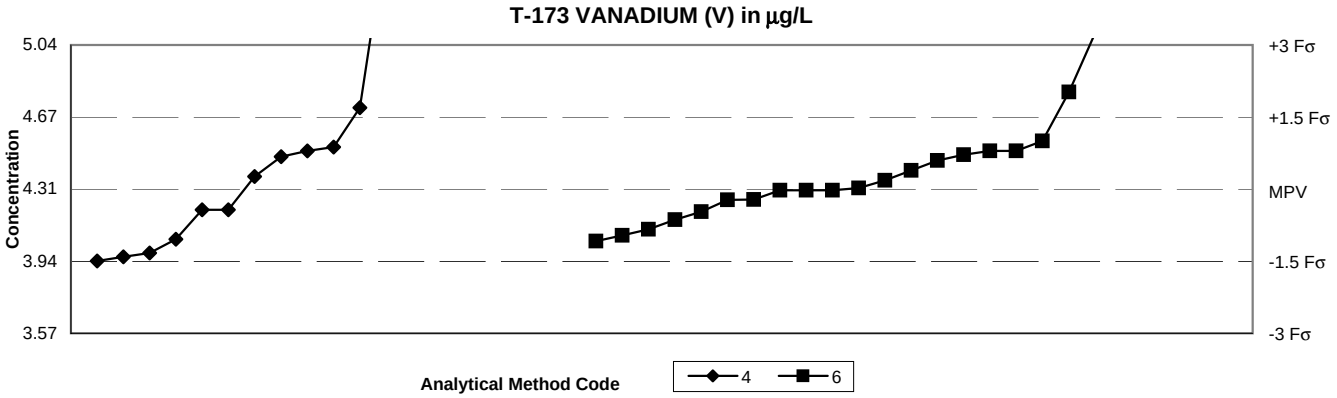
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | Methods | | Statistics | |
|---|---|---|---|---|---|
| | 6 | Method Codes | | | |
| n = | 18 | 06 Inductively coupled plasma / mass spectrometry | | **MPV =** | **1.92 µg/L** |
| Minimum = | 1.73 | | | F-pseudosigma = | 0.087 |
| Maximum = | 2.3 | | | Rating criterion = | 0.096 |
| Median = | 1.92 | | | n = | 18 |
| F-pseudosigma = | 0.087 | | | Uh = | 2.017 |
| | | | | Lh = | 1.9 |
| | | | | N/2 = | 9 |

| | | | Method Codes |
|---|---|---|---|
| **Lab** | Rating | Z-value | 6 |
| **1** | 2 | 1.0653 | 2.017 |
| **7** | 4 | -0.1567 | 1.9 |
| **8** | 4 | -0.47 | 1.87 |
| **16** | 0 | 4.0209 | 2.3 |
| **32** | 4 | 0.1567 | 1.93 |
| **42** | 1 | 1.5144 | 2.06 |
| **45** | 1 | -1.5144 | 1.77 |
| **70** | 4 | -0.1567 | 1.9 |
| **142** | 4 | -0.1567 | 1.9 |
| **149** | 2 | -1.201 | 1.8 |
| **212** | 4 | -0.1567 | 1.9 |
| **219** | 1 | -1.9321 | 1.73 |
| **230** | 3 | 0.8877 | 2 |
| **235** | 2 | 1.0966 | 2.02 |
| **265** | 4 | -0.1567 | 1.9 |
| **304** | 3 | 0.8877 | 2 |
| **323** | 1 | 1.7232 | 2.08 |
| **328** | 3 | 0.5744 | 1.97 |

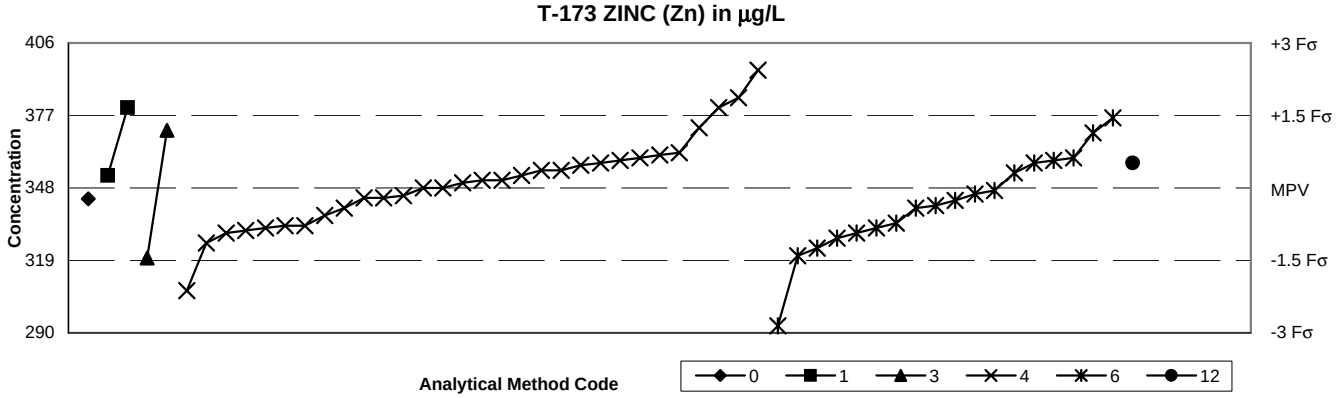
**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***




| SUMMARY | | | Methods | Statistics | |
|---|---|---|---|---|---|
| | 4 | 6 | Method Codes | | |
| n = | 12 | 20 | 04 Inductively coupled plasma | **MPV =** | **4.31 µg/L** |
| Minimum = | 3.94 | 4.04 | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 0.245 |
| Maximum = | 5.6 | 5.1 | | n = | 32 |
| Median = | 4.29 | 4.31 | | Uh = | 4.50 |
| F-pseudosigma = | 0.367 | 0.200 | | Lh = | 4.17 |

| | | | Method Codes | |
|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 |
| **1** | 4 | -0.22 | -- | 4.252 |
| **5** | 3 | 0.88 | 4.52 | -- |
| **7** | NR | -- | <20 | -- |
| **8** | 2 | -1.08 | -- | 4.04 |
| **16** | 3 | 0.80 | 4.5 | -- |
| **18** | NR | -- | <5 | -- |
| **24** | NR | -- | <18 | -- |
| **25** | NR | -- | < 19 | -- |
| **32** | 4 | -0.22 | -- | 4.25 |
| **42** | 3 | -0.63 | -- | 4.15 |
| **45** | 3 | -0.84 | -- | 4.1 |
| **50** | 4 | 0.02 | -- | 4.31 |
| **59** | 4 | -0.47 | -- | 4.19 |
| **70** | 3 | 0.80 | -- | 4.5 |
| **76** | 4 | -0.02 | -- | 4.3 |
| **86** | 2 | -1.49 | 3.94 | -- |
| **97** | 2 | -1.41 | 3.96 | -- |
| **100** | NR | -- | <5 | -- |
| **105** | NR | -- | <20 | -- |
| **134** | 4 | -0.43 | 4.2 | -- |
| **138** | 2 | -1.04 | 4.05 | -- |
| **142** | 3 | -0.96 | -- | 4.07 |
| **146** | 4 | -0.43 | 4.2 | -- |
| **149** | 4 | -0.02 | -- | 4.3 |
| **212** | 4 | 0.18 | -- | 4.35 |
| **219** | 4 | -0.02 | -- | 4.3 |
| **220** | 0 | 5.29 | 5.6 | -- |
| **230** | 0 | 2.02 | -- | 4.8 |
| **234** | 4 | 0.27 | 4.37 | -- |
| **235** | 3 | 0.80 | -- | 4.5 |
| **247** | NR | -- | <10 | -- |
| **256** | 2 | -1.33 | 3.98 | -- |
| **265** | 4 | 0.39 | -- | 4.4 |
| **304** | 3 | 0.59 | -- | 4.45 |
| **323** | 0 | 3.25 | -- | 5.1 |
| **328** | 3 | 0.67 | 4.47 | -- |
| **356** | 3 | 0.72 | -- | 4.48 |
| **379** | 1 | 1.70 | 4.72 | -- |
| **390** | 3 | 1.00 | -- | 4.55 |

**Table 11.** ***Statistical summary of reported data for standard reference sample T-173 (trace constituents) -- continued***

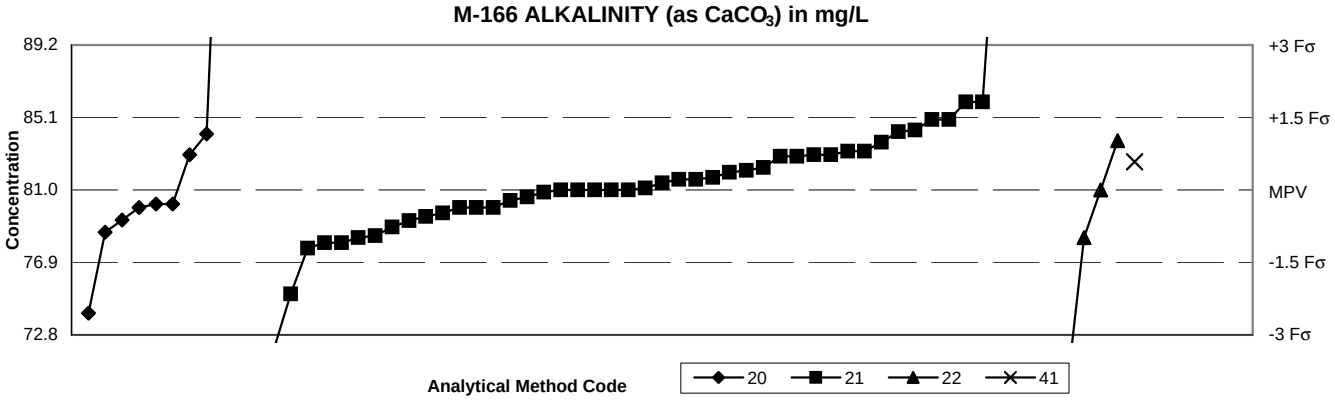



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 3 | 4 | 6 | 12 | Method Codes | | |
| n = | 1 | 2 | 2 | 30 | 18 | 1 | 00 Other | **MPV =** | **348 µg/L** |
| Minimum = | 343.7 | 353 | 320 | 307 | 293 | 358 | 01 Atomic absorption: direct, air | F-pseudosigma = | 19.3 |
| Maximum = | | 380 | 371 | 395 | 376 | | 03 Atomic absorption: graphite furnace | n = | 54 |
| Median = | | | | 351 | 342 | | 04 Inductively coupled plasma | Uh = | 359 |
| F-pseudosigma = | | | | 16.3 | 20.8 | | 06 Inductively coupled plasma / mass spectrometry | Lh = | 333 |
| | | | | | | | 12 Flame emission | | |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 3 | 4 | 6 | 12 |
| **1** | 4 | -0.12 | -- | -- | -- | -- | 345.6 | -- |
| **5** | 4 | 0.26 | -- | -- | -- | 353 | -- | -- |
| **7** | 3 | -0.57 | -- | -- | -- | 337 | -- | -- |
| **8** | 0 | -2.85 | -- | -- | -- | -- | 293 | -- |
| **10** | 4 | 0.26 | -- | 353 | -- | -- | -- | -- |
| **12** | 3 | -0.93 | -- | -- | -- | 330 | -- | -- |
| **16** | 3 | -0.78 | -- | -- | -- | 333 | -- | -- |
| **18** | 0 | -2.13 | -- | -- | -- | 307 | -- | -- |
| **23** | 2 | -1.14 | -- | -- | -- | 326 | -- | -- |
| **24** | 4 | 0.36 | -- | -- | -- | 355 | -- | -- |
| **25** | 3 | 0.68 | -- | -- | -- | 361.2 | -- | -- |
| **32** | 3 | 0.62 | -- | -- | -- | -- | 360 | -- |
| **42** | 4 | 0.00 | -- | -- | -- | 348 | -- | -- |
| **45** | 3 | -0.93 | -- | -- | -- | -- | 330 | -- |
| **46** | 4 | -0.21 | -- | -- | -- | 344 | -- | -- |
| **50** | 2 | -1.25 | -- | -- | -- | -- | 324 | -- |
| **59** | 4 | -0.26 | -- | -- | -- | -- | 343 | -- |
| **70** | 3 | 0.57 | -- | -- | -- | -- | 359 | -- |
| **86** | 4 | 0.16 | -- | -- | -- | 351 | -- | -- |
| **89** | 2 | 1.19 | -- | -- | 371 | -- | -- | -- |
| **97** | 4 | 0.00 | -- | -- | -- | 348 | -- | -- |
| **100** | 4 | 0.16 | -- | -- | -- | 351 | -- | -- |
| **105** | 0 | 2.44 | -- | -- | -- | 395 | -- | -- |
| **113** | 4 | -0.21 | -- | -- | -- | 344 | -- | -- |
| **134** | 3 | 0.57 | -- | -- | -- | 359 | -- | -- |
| **138** | 3 | -0.78 | -- | -- | -- | 333 | -- | -- |
| **142** | 4 | 0.31 | -- | -- | -- | -- | 354 | -- |
| **146** | 3 | 0.62 | -- | -- | -- | 360 | -- | -- |
| **147** | 4 | -0.36 | -- | -- | -- | -- | 341 | -- |
| **149** | 2 | 1.14 | -- | -- | -- | -- | 370 | -- |
| **180** | 2 | -1.40 | -- | -- | -- | -- | 321 | -- |
| **190** | 4 | 0.36 | -- | -- | -- | 355 | -- | -- |
| **212** | 4 | 0.47 | -- | -- | -- | 357 | -- | -- |
| **219** | 3 | -0.83 | -- | -- | -- | -- | 332 | -- |
| **220** | 3 | -0.83 | -- | -- | -- | 332 | -- | -- |
| **227** | 3 | 0.73 | -- | -- | -- | 362 | -- | -- |
| **230** | 4 | -0.05 | -- | -- | -- | -- | 347 | -- |
| **234** | 4 | -0.42 | -- | -- | -- | 340 | -- | -- |
| **235** | 3 | 0.52 | -- | -- | -- | -- | 358 | -- |
| **247** | 4 | 0.10 | -- | -- | -- | 350 | -- | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 3 | 4 | 6 | 12 |
| **256** | 2 | -1.45 | -- | -- | 320 | -- | -- | -- |
| **259** | 3 | 0.52 | -- | -- | -- | 358 | -- | -- |
| **265** | 4 | -0.16 | -- | -- | -- | 345 | -- | -- |
| **273** | 1 | 1.66 | -- | -- | -- | 380 | -- | -- |
| **277** | 3 | 0.52 | -- | -- | -- | -- | -- | 358 |
| **304** | 3 | -0.73 | -- | -- | -- | -- | 334 | -- |
| **307** | 1 | 1.66 | -- | 380 | -- | -- | -- | -- |
| **323** | 4 | -0.42 | -- | -- | -- | -- | 340 | -- |
| **326** | 4 | -0.22 | 343.7 | -- | -- | -- | -- | -- |
| **328** | 1 | 1.87 | -- | -- | -- | 384 | -- | -- |
| **330** | 2 | 1.25 | -- | -- | -- | 372 | -- | -- |
| **356** | 2 | -1.04 | -- | -- | -- | -- | 328 | -- |
| **379** | 3 | -0.88 | -- | -- | -- | 331 | -- | -- |
| **390** | 2 | 1.45 | -- | -- | -- | -- | 376 | -- |

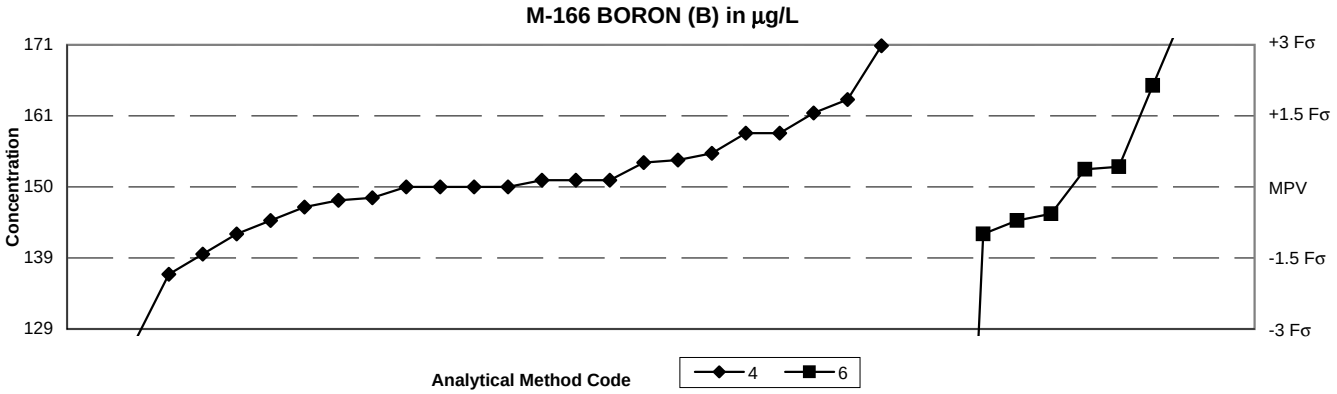
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 20 | 21 | 22 | 41 | Method Codes | | |
| n = | 10 | 47 | 5 | 1 | 20 Titration: colorimetric | **MPV =** | **81.0 mg/L** |
| Minimum = | 74 | 41.27 | 67 | 82.6 | 21 Titration: electrometric | F-pseudosigma = | 2.74 |
| Maximum = | 156.9 | 113 | 83.8 | | 22 Colorimetric | Rating criterion = | 4.05 |
| Median = | 80.2 | 81.1 | 78.3 | | 41 Electrometric | n = | 63 |
| F-pseudosigma = | 3.61 | 2.41 | 8.30 | | | Uh = | 83.1 |
| | | | | | | Lh = | 79.4 |

| | | | Method Codes | | | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 20 | 21 | 22 | 41 | | **Lab** | Rating | Z-value | 20 | 21 | 22 | 41 |
| **1** | 4 | 0.31 | -- | 82.27 | -- | -- | | **234** | 4 | 0.00 | -- | -- | 81 | -- |
| **4** | 4 | 0.15 | -- | 81.6 | -- | -- | | **247** | 4 | -0.25 | -- | 80 | -- | -- |
| **5** | 2 | 1.23 | -- | 86 | -- | -- | | **256** | 3 | 0.78 | 84.17 | -- | -- | -- |
| **8** | 4 | 0.00 | -- | 81 | -- | -- | | **259** | 4 | 0.00 | -- | 81 | -- | -- |
| **10** | 4 | 0.47 | -- | 82.9 | -- | -- | | **263** | 3 | 0.67 | -- | 83.7 | -- | -- |
| **12** | 4 | 0.49 | -- | 83 | -- | -- | | **266** | 3 | 0.99 | -- | 85 | -- | -- |
| **16** | 0 | -3.46 | -- | -- | 67 | -- | | **269** | 4 | 0.00 | -- | 81 | -- | -- |
| **18** | 3 | -0.67 | -- | -- | 78.3 | -- | | **273** | 4 | -0.43 | -- | 79.25 | -- | -- |
| **23** | 3 | 0.99 | -- | 85 | -- | -- | | **274** | 0 | 18.75 | 156.9 | -- | -- | -- |
| **24** | 4 | -0.03 | -- | 80.88 | -- | -- | | **276** | 4 | 0.40 | -- | -- | -- | 82.6 |
| **25** | 4 | 0.49 | -- | 83 | -- | -- | | **307** | 4 | 0.17 | -- | 81.7 | -- | -- |
| **32** | 4 | -0.20 | 80.2 | -- | -- | -- | | **321** | 3 | -0.74 | -- | 78 | -- | -- |
| **33** | 4 | -0.32 | -- | 79.7 | -- | -- | | **323** | 4 | -0.25 | -- | 80 | -- | -- |
| **38** | 0 | -9.81 | -- | 41.27 | -- | -- | | **328** | 4 | -0.25 | 80 | -- | -- | -- |
| **42** | 3 | 0.84 | -- | 84.4 | -- | -- | | **330** | 4 | 0.00 | -- | 81 | -- | -- |
| **45** | 3 | -0.52 | -- | 78.9 | -- | -- | | **333** | 4 | -0.37 | -- | 79.5 | -- | -- |
| **46** | 3 | -0.64 | -- | 78.4 | -- | -- | | **341** | 0 | -2.77 | -- | -- | 69.8 | -- |
| **50** | 0 | 4.69 | -- | 100 | -- | -- | | **356** | 3 | 0.54 | -- | 83.2 | -- | -- |
| **59** | 3 | 0.81 | -- | 84.3 | -- | -- | | **366** | 4 | -0.42 | 79.3 | -- | -- | -- |
| **70** | 3 | -0.81 | -- | 77.7 | -- | -- | | **377** | 4 | 0.49 | 83 | -- | -- | -- |
| **80** | 0 | 6.35 | 106.7 | -- | -- | -- | | **379** | 3 | -0.67 | -- | 78.3 | -- | -- |
| **89** | 4 | 0.47 | -- | 82.9 | -- | -- | | **386** | 4 | -0.25 | -- | 80 | -- | -- |
| **91** | 4 | -0.20 | 80.2 | -- | -- | -- | | **388** | 3 | -0.74 | -- | 78 | -- | -- |
| **100** | 2 | -1.46 | -- | 75.1 | -- | -- | | | | | | | | |
| **105** | 3 | 0.54 | -- | 83.2 | -- | -- | | | | | | | | |
| **113** | 2 | 1.23 | -- | 86 | -- | -- | | | | | | | | |
| **118** | 3 | -0.59 | 78.6 | -- | -- | -- | | | | | | | | |
| **134** | 4 | 0.15 | -- | 81.6 | -- | -- | | | | | | | | |
| **138** | 3 | 0.69 | -- | -- | 83.8 | -- | | | | | | | | |
| **142** | 4 | 0.25 | -- | 82 | -- | -- | | | | | | | | |
| **146** | 4 | 0.02 | -- | 81.1 | -- | -- | | | | | | | | |
| **180** | 4 | 0.00 | -- | 81 | -- | -- | | | | | | | | |
| **183** | 1 | -1.73 | 74 | -- | -- | -- | | | | | | | | |
| **190** | 4 | -0.15 | -- | 80.4 | -- | -- | | | | | | | | |
| **193** | 4 | 0.10 | -- | 81.4 | -- | -- | | | | | | | | |
| **212** | 4 | -0.10 | -- | 80.6 | -- | -- | | | | | | | | |
| **220** | 0 | 4.91 | -- | 100.9 | -- | -- | | | | | | | | |
| **224** | 0 | -2.22 | -- | 72 | -- | -- | | | | | | | | |
| **227** | 4 | 0.27 | -- | 82.1 | -- | -- | | | | | | | | |
| **230** | 0 | 7.90 | -- | 113 | -- | -- | | | | | | | | |

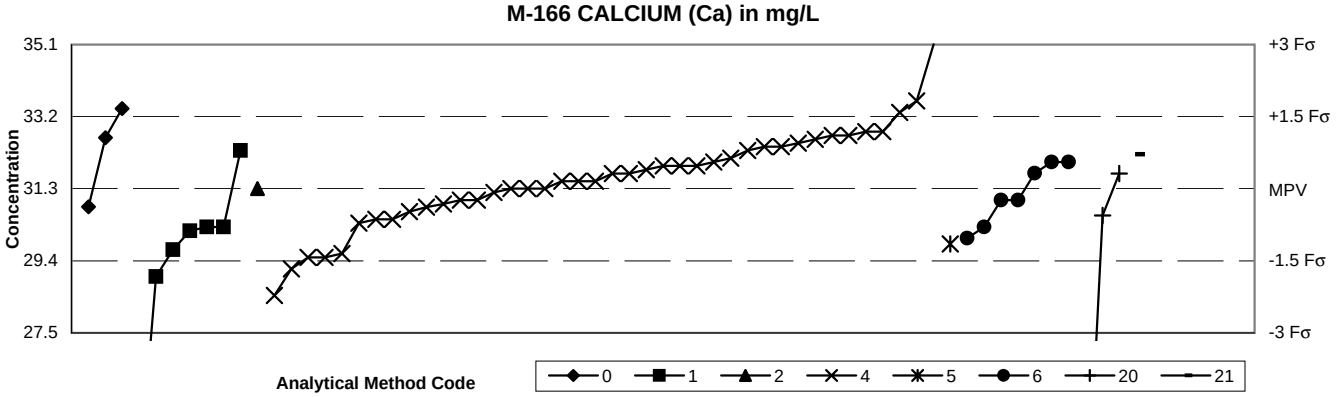
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|
| | 4 | 6 | 22 | Method Codes | | |
| n = | 24 | 8 | 0 | 04 Inductively coupled plasma | **MPV =** | **150 µg/L** |
| Minimum = | 59 | 33.3 | | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 7.0 |
| Maximum = | 171 | 177 | | 22 Colorimetric | Rating criterion = | 7.5 |
| Median = | 150 | 149 | | | n = | 32 |
| F-pseudosigma = | 6.3 | 11.2 | | | Uh = | 155 |
| | | | | | Lh = | 145 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 | 22 |
| **1** | 0 | 2.01 | -- | 165.1 | -- |
| **5** | 3 | 0.53 | 154 | -- | -- |
| **8** | 0 | 3.60 | -- | 177 | -- |
| **16** | 0 | -12.13 | 59 | -- | -- |
| **18** | 4 | 0.13 | 151 | -- | -- |
| **24** | 4 | -0.40 | 147 | -- | -- |
| **25** | 4 | -0.21 | 148.4 | -- | -- |
| **32** | 3 | -0.93 | -- | 143 | -- |
| **42** | 2 | -1.33 | 140 | -- | -- |
| **45** | 4 | 0.40 | -- | 153 | -- |
| **50** | 4 | 0.13 | 151 | -- | -- |
| **59** | 0 | -15.56 | -- | 33.3 | -- |
| **76** | 4 | 0.35 | -- | 152.6 | -- |
| **86** | 3 | -0.67 | 145 | -- | -- |
| **100** | 4 | -0.27 | 148 | -- | -- |
| **105** | NR | -- | <200 | -- | -- |
| **134** | 4 | 0.00 | 150 | -- | -- |
| **138** | 1 | -1.73 | 137 | -- | -- |
| **142** | 0 | 2.80 | 171 | -- | -- |
| **212** | 0 | -3.07 | 127 | -- | -- |
| **219** | 3 | -0.93 | 143 | -- | -- |
| **220** | 3 | 0.67 | 155 | -- | -- |
| **230** | 3 | -0.53 | -- | 146 | -- |
| **234** | 2 | 1.07 | 158 | -- | -- |
| **247** | 4 | 0.00 | 150 | -- | -- |
| **259** | 2 | 1.47 | 161 | -- | -- |
| **265** | 3 | -0.67 | -- | 145 | -- |
| **319** | 4 | 0.00 | 150 | -- | -- |
| **323** | 2 | 1.07 | 158 | -- | -- |
| **326** | 4 | 0.48 | 153.6 | -- | -- |
| **327** | NR | -- | -- | -- | <250 |
| **328** | 4 | 0.00 | 150 | -- | -- |
| **341** | 1 | 1.73 | 163 | -- | -- |
| **377** | 4 | 0.13 | 151 | -- | -- |

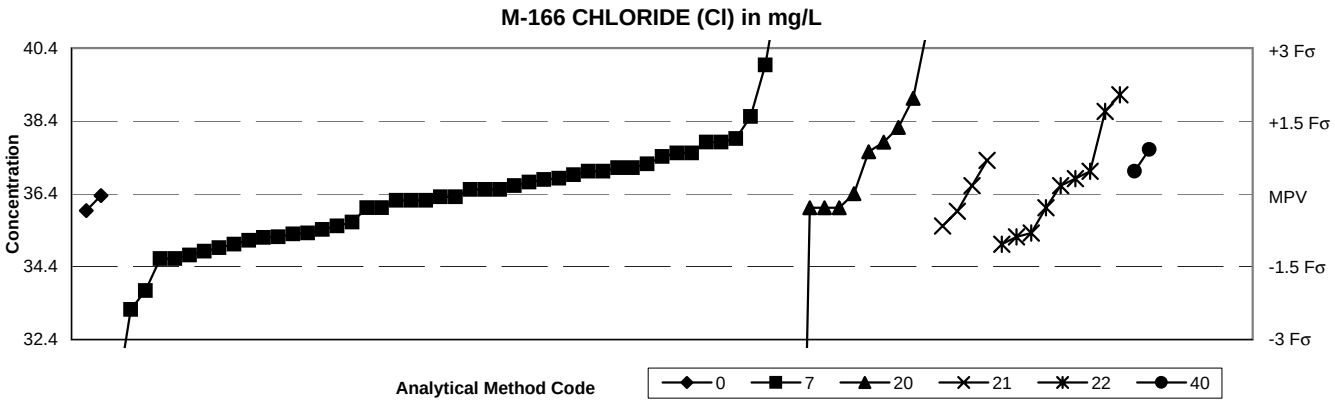
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 4 | 5 | 6 | 20 | 21 | Method Codes |
| n = | 3 | 7 | 1 | 40 | 1 | 7 | 3 | 1 | 00 Other |
| Minimum = | 30.83 | 23.67 | 31.3 | 28.5 | 29.85 | 30 | 21.77 | 32.2 | 01 Atomic absorption: direct, air |
| Maximum = | 33.4 | 32.3 | | 35.09 | | 32 | 31.7 | | 02 Atomic absorption: direct, nitrous oxide |
| Median = | | 30.2 | | 31.6 | | 31.0 | | | 04 Inductively coupled plasma |
| F-pseudosigma = | | 0.70 | | 1.14 | | 0.89 | | | 05 Direct current plasma |
| | | | | | | | | | 06 Inductively coupled plasma / mass spectrometry |
| | | | | | | | | | 20 Titration: colorimetric |
| | | | | | | | | | 21 Titration: electrometric |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Method Codes | | | | | | | | | | Method Codes | | | | | | | |
| **Lab** | Rating | Z-value | 0 | 1 | 2 | 4 | 5 | 6 | 20 | 21 | **Lab** | Rating | Z-value | 0 | 1 | 2 | 4 | 5 | 6 | 20 | 21 |
| **1** | 4 | -0.26 | -- | -- | -- | 30.9 | -- | -- | -- | -- | **227** | 3 | 0.89 | -- | -- | -- | 32.7 | -- | -- | -- | -- |
| **5** | 4 | 0.13 | -- | -- | -- | 31.5 | -- | -- | -- | -- | **230** | 4 | 0.45 | -- | -- | -- | -- | -- | 32 | -- | -- |
| **8** | 4 | 0.38 | -- | -- | -- | 31.9 | -- | -- | -- | -- | **234** | 4 | 0.32 | -- | -- | -- | 31.8 | -- | -- | -- | -- |
| **10** | 3 | 0.64 | -- | 32.3 | -- | -- | -- | -- | -- | -- | **247** | 2 | -1.15 | -- | -- | -- | 29.5 | -- | -- | -- | -- |
| **12** | 3 | 0.64 | -- | -- | -- | 32.3 | -- | -- | -- | -- | **256** | 4 | -0.30 | 30.83 | -- | -- | -- | -- | -- | -- | -- |
| **16** | 2 | -1.15 | -- | -- | -- | 29.5 | -- | -- | -- | -- | **259** | 4 | 0.38 | -- | -- | -- | 31.9 | -- | -- | -- | -- |
| **18** | 4 | -0.06 | -- | -- | -- | 31.2 | -- | -- | -- | -- | **263** | 4 | -0.45 | -- | -- | -- | -- | -- | -- | 30.6 | -- |
| **23** | 4 | 0.45 | -- | -- | -- | 32 | -- | -- | -- | -- | **265** | 3 | 0.51 | -- | -- | -- | 32.1 | -- | -- | -- | -- |
| **24** | 3 | -0.51 | -- | -- | -- | 30.5 | -- | -- | -- | -- | **266** | 3 | 0.58 | -- | -- | -- | -- | -- | -- | -- | 32.2 |
| **25** | 0 | 2.42 | -- | -- | -- | 35.09 | -- | -- | -- | -- | **273** | 2 | 1.47 | -- | -- | -- | 33.6 | -- | -- | -- | -- |
| **30** | 4 | -0.19 | -- | -- | -- | -- | -- | 31 | -- | -- | **274** | 0 | -6.09 | -- | -- | -- | -- | -- | -- | 21.77 | -- |
| **32** | 4 | 0.45 | -- | -- | -- | -- | -- | 32 | -- | -- | **277** | 2 | -1.02 | -- | 29.7 | -- | -- | -- | -- | -- | -- |
| **33** | 3 | -0.93 | -- | -- | -- | -- | 29.85 | -- | -- | -- | **279** | 3 | 0.86 | 32.64 | -- | -- | -- | -- | -- | -- | -- |
| **38** | 4 | 0.00 | -- | -- | 31.3 | -- | -- | -- | -- | -- | **301** | 0 | -4.88 | -- | 23.67 | -- | -- | -- | -- | -- | -- |
| **42** | 4 | -0.19 | -- | -- | -- | 31 | -- | -- | -- | -- | **323** | 4 | 0.13 | -- | -- | -- | 31.5 | -- | -- | -- | -- |
| **45** | 3 | -0.64 | -- | -- | -- | -- | -- | 30.3 | -- | -- | **326** | 4 | 0.38 | -- | -- | -- | 31.9 | -- | -- | -- | -- |
| **46** | 4 | 0.00 | -- | -- | -- | 31.3 | -- | -- | -- | -- | **328** | 3 | 0.89 | -- | -- | -- | 32.7 | -- | -- | -- | -- |
| **50** | 3 | 0.77 | -- | -- | -- | 32.5 | -- | -- | -- | -- | **341** | 3 | -0.70 | -- | 30.2 | -- | -- | -- | -- | -- | -- |
| **59** | 3 | -0.64 | -- | 30.3 | -- | -- | -- | -- | -- | -- | **366** | 3 | 0.96 | -- | -- | -- | 32.8 | -- | -- | -- | -- |
| **64** | 4 | -0.38 | -- | -- | -- | 30.7 | -- | -- | -- | -- | **377** | 2 | -1.47 | -- | 29 | -- | -- | -- | -- | -- | -- |
| **70** | 3 | 0.70 | -- | -- | -- | 32.4 | -- | -- | -- | -- | **379** | 4 | 0.26 | -- | -- | -- | -- | -- | -- | 31.7 | -- |
| **76** | 4 | 0.26 | -- | -- | -- | -- | -- | 31.71 | -- | -- | **383** | 4 | 0.26 | -- | -- | -- | 31.7 | -- | -- | -- | -- |
| **80** | 3 | -0.64 | -- | 30.3 | -- | -- | -- | -- | -- | -- | **386** | 2 | -1.34 | -- | -- | -- | 29.2 | -- | -- | -- | -- |
| **86** | 4 | 0.00 | -- | -- | -- | 31.3 | -- | -- | -- | -- | | | | | | | | | | | |
| **100** | 3 | 0.83 | -- | -- | -- | 32.6 | -- | -- | -- | -- | | | | | | | | | | | |
| **102** | 2 | 1.34 | 33.4 | -- | -- | -- | -- | -- | -- | -- | | | | | | | | | | | |
| **105** | 2 | 1.28 | -- | -- | -- | 33.3 | -- | -- | -- | -- | | | | | | | | | | | |
| **113** | 4 | -0.19 | -- | -- | -- | 31 | -- | -- | -- | -- | | | | | | | | | | | |
| **134** | 4 | 0.26 | -- | -- | -- | 31.7 | -- | -- | -- | -- | | | | | | | | | | | |
| **138** | 4 | 0.13 | -- | -- | -- | 31.5 | -- | -- | -- | -- | | | | | | | | | | | |
| **142** | 3 | 0.96 | -- | -- | -- | 32.8 | -- | -- | -- | -- | | | | | | | | | | | |
| **146** | 3 | 0.70 | -- | -- | -- | 32.4 | -- | -- | -- | -- | | | | | | | | | | | |
| **149** | 4 | -0.19 | -- | -- | -- | -- | -- | 31 | -- | -- | | | | | | | | | | | |
| **180** | 4 | 0.00 | -- | -- | -- | 31.3 | -- | -- | -- | -- | | | | | | | | | | | |
| **190** | 1 | -1.79 | -- | -- | -- | 28.5 | -- | -- | -- | -- | | | | | | | | | | | |
| **193** | 3 | -0.83 | -- | -- | -- | -- | -- | 30 | -- | -- | | | | | | | | | | | |
| **212** | 2 | -1.09 | -- | -- | -- | 29.6 | -- | -- | -- | -- | | | | | | | | | | | |
| **219** | 3 | -0.58 | -- | -- | -- | 30.4 | -- | -- | -- | -- | | | | | | | | | | | |
| **220** | 3 | -0.51 | -- | -- | -- | 30.5 | -- | -- | -- | -- | | | | | | | | | | | |
| **224** | 4 | -0.31 | -- | -- | -- | 30.82 | -- | -- | -- | -- | | | | | | | | | | | |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

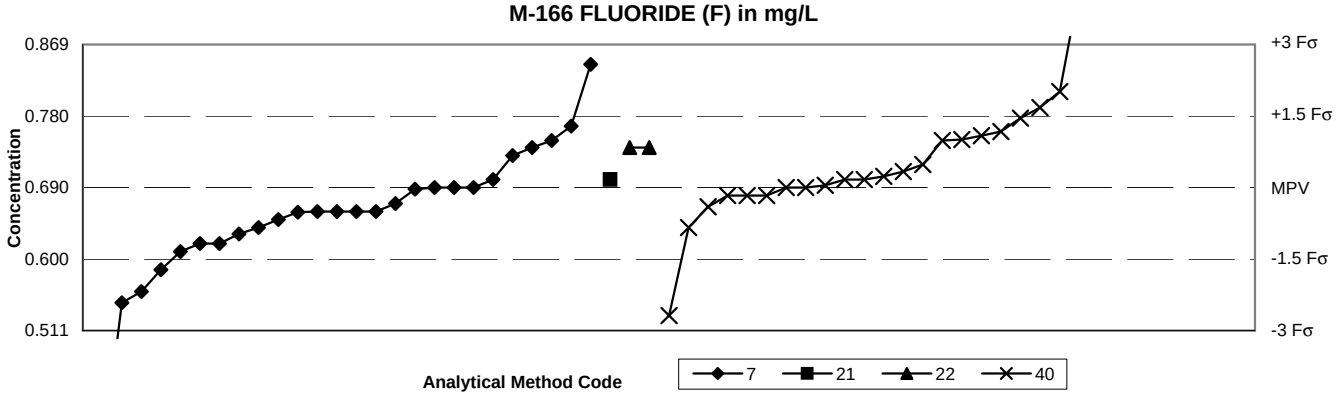



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 7 | 20 | 21 | 22 | 40 | Method Codes | | |
| n = | 2 | 46 | 10 | 4 | 9 | 2 | 00 Other | **MPV =** | **36.4 mg/L** |
| Minimum = | 35.92 | 30.6 | 15.93 | 35.5 | 35 | 37 | 07 Ion chromatography | F-pseudosigma = | 1.33 |
| Maximum = | 36.33 | 42.3 | 41 | 37.3 | 39.1 | 37.6 | 20 Titration: colorimetric | Rating criterion = | 1.82 |
| Median = | | 36.3 | 37.0 | | 36.6 | | 21 Titration: electrometric | n = | 73 |
| F-pseudosigma = | | 1.41 | 1.63 | | 1.26 | | 22 Colorimetric | Uh = | 37.2 |
| | | | | | | | 40 Ion selective electrode | Lh = | 35.4 |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 20 | 21 | 22 | 40 | |
| **1** | 4 | 0.24 | -- | 36.81 | -- | -- | -- | -- | |
| **4** | 4 | 0.07 | -- | 36.5 | -- | -- | -- | -- | |
| **5** | 4 | -0.03 | 36.33 | -- | -- | -- | -- | -- | |
| **8** | 0 | 3.25 | -- | 42.3 | -- | -- | -- | -- | |
| **10** | 4 | -0.04 | -- | 36.3 | -- | -- | -- | -- | |
| **16** | 3 | -0.65 | -- | -- | -- | -- | 35.2 | -- | |
| **18** | 3 | -0.59 | -- | -- | -- | -- | 35.3 | -- | |
| **24** | 4 | 0.12 | -- | -- | -- | -- | 36.6 | -- | |
| **25** | 4 | -0.10 | -- | 36.2 | -- | -- | -- | -- | |
| **30** | 4 | 0.45 | -- | 37.2 | -- | -- | -- | -- | |
| **32** | 3 | -0.81 | -- | 34.9 | -- | -- | -- | -- | |
| **33** | 1 | 1.95 | -- | 39.92 | -- | -- | -- | -- | |
| **42** | 3 | -0.92 | -- | 34.7 | -- | -- | -- | -- | |
| **45** | 2 | 1.17 | -- | 38.5 | -- | -- | -- | -- | |
| **46** | 4 | 0.34 | -- | -- | -- | -- | 37 | -- | |
| **50** | 3 | 0.78 | -- | 37.8 | -- | -- | -- | -- | |
| **59** | 4 | 0.12 | -- | 36.6 | -- | -- | -- | -- | |
| **64** | 3 | -0.59 | -- | 35.3 | -- | -- | -- | -- | |
| **70** | 3 | -0.54 | -- | 35.4 | -- | -- | -- | -- | |
| **76** | 3 | -0.65 | -- | 35.2 | -- | -- | -- | -- | |
| **80** | 3 | 0.78 | -- | -- | 37.8 | -- | -- | -- | |
| **89** | 4 | -0.04 | -- | 36.3 | -- | -- | -- | -- | |
| **91** | 4 | -0.10 | -- | 36.2 | -- | -- | -- | -- | |
| **100** | 4 | 0.29 | -- | 36.9 | -- | -- | -- | -- | |
| **102** | 3 | 0.62 | -- | 37.5 | -- | -- | -- | -- | |
| **105** | 3 | 0.84 | -- | 37.9 | -- | -- | -- | -- | |
| **113** | 4 | 0.07 | -- | 36.5 | -- | -- | -- | -- | |
| **121** | 4 | 0.00 | -- | -- | 36.38 | -- | -- | -- | |
| **134** | 4 | 0.07 | -- | 36.5 | -- | -- | -- | -- | |
| **138** | 4 | 0.40 | -- | 37.1 | -- | -- | -- | -- | |
| **142** | 4 | 0.34 | -- | 37 | -- | -- | -- | -- | |
| **146** | 3 | 0.62 | -- | 37.5 | -- | -- | -- | -- | |
| **149** | 3 | 0.56 | -- | 37.4 | -- | -- | -- | -- | |
| **180** | 3 | 0.78 | -- | 37.8 | -- | -- | -- | -- | |
| **183** | 3 | 0.64 | -- | -- | 37.54 | -- | -- | -- | |
| **190** | 3 | -0.70 | -- | 35.1 | -- | -- | -- | -- | |
| **208** | 4 | -0.10 | -- | 36.2 | -- | -- | -- | -- | |
| **212** | 4 | -0.48 | -- | 35.5 | -- | -- | -- | -- | |
| **219** | 3 | -0.66 | -- | 35.18 | -- | -- | -- | -- | |
| **220** | 2 | 1.24 | -- | -- | -- | -- | 38.64 | -- | |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 20 | 21 | 22 | 40 | |
| **227** | 4 | 0.21 | -- | 36.77 | -- | -- | -- | -- | |
| **230** | 4 | 0.34 | -- | 37 | -- | -- | -- | -- | |
| **234** | 3 | -0.98 | -- | 34.6 | -- | -- | -- | -- | |
| **247** | 4 | 0.40 | -- | 37.1 | -- | -- | -- | -- | |
| **254** | 4 | -0.21 | -- | 36 | -- | -- | -- | -- | |
| **256** | 3 | -0.60 | -- | 35.28 | -- | -- | -- | -- | |
| **259** | 4 | -0.26 | -- | -- | -- | 35.9 | -- | -- | |
| **263** | 4 | 0.51 | -- | -- | -- | 37.3 | -- | -- | |
| **265** | 3 | -0.98 | -- | 34.6 | -- | -- | -- | -- | |
| **266** | 4 | 0.12 | -- | -- | -- | 36.6 | -- | -- | |
| **269** | 4 | 0.34 | -- | -- | -- | -- | -- | 37 | |
| **273** | 4 | -0.25 | 35.92 | -- | -- | -- | -- | -- | |
| **274** | 0 | -11.24 | -- | -- | 15.93 | -- | -- | -- | |
| **276** | 3 | 1.00 | -- | -- | 38.2 | -- | -- | -- | |
| **277** | 0 | -3.18 | -- | 30.6 | -- | -- | -- | -- | |
| **301** | 2 | -1.46 | -- | 33.73 | -- | -- | -- | -- | |
| **307** | 4 | -0.21 | -- | -- | 36 | -- | -- | -- | |
| **319** | 0 | 2.54 | -- | -- | 41 | -- | -- | -- | |
| **321** | 4 | -0.43 | -- | 35.6 | -- | -- | -- | -- | |
| **323** | 1 | -1.75 | -- | 33.2 | -- | -- | -- | -- | |
| **326** | 4 | -0.48 | -- | -- | -- | 35.5 | -- | -- | |
| **327** | 2 | 1.44 | -- | -- | 39 | -- | -- | -- | |
| **328** | 3 | -0.76 | -- | 35 | -- | -- | -- | -- | |
| **330** | 3 | -0.76 | -- | -- | -- | -- | 35 | -- | |
| **341** | 4 | 0.23 | -- | -- | -- | -- | 36.8 | -- | |
| **356** | 4 | 0.18 | -- | 36.7 | -- | -- | -- | -- | |
| **366** | 2 | 1.50 | -- | -- | -- | -- | 39.1 | -- | |
| **374** | 4 | -0.21 | -- | -- | 36 | -- | -- | -- | |
| **377** | 3 | 0.67 | -- | -- | -- | -- | -- | 37.6 | |
| **379** | 4 | -0.21 | -- | -- | -- | -- | 36 | -- | |
| **383** | 3 | -0.87 | -- | 34.8 | -- | -- | -- | -- | |
| **386** | 4 | -0.21 | -- | -- | 36 | -- | -- | -- | |
| **388** | 4 | -0.21 | -- | 36 | -- | -- | -- | -- | |

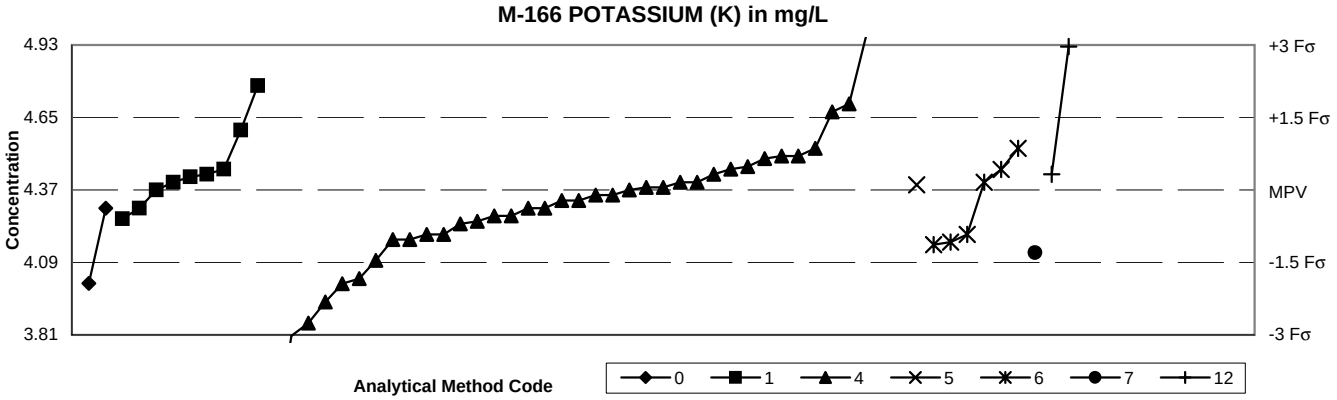
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 7 | 21 | 22 | 40 | Method Codes | | |
| n = | 26 | 1 | 2 | 22 | 07 Ion chromatography | **MPV =** | **0.690 mg/L** |
| Minimum = | 0.35 | 0.7 | 0.74 | 0.53 | 21 Titration: electrometric | F-pseudosigma = | 0.0597 |
| Maximum = | 0.844 | | 0.74 | 0.94 | 22 Colorimetric | n = | 51 |
| Median = | 0.660 | | | 0.702 | 40 Ion selective electrode | Uh = | 0.740 |
| F-pseudosigma = | 0.0519 | | | 0.0556 | | Lh = | 0.660 |

| | | | Method Codes | | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 21 | 22 | 40 | | **Lab** | Rating | Z-value | 7 | 21 | 22 | 40 |
| **1** | 4 | 0.49 | -- | -- | -- | 0.719 | | **273** | 4 | 0.17 | -- | -- | -- | 0.7 |
| **5** | 2 | -1.17 | 0.62 | -- | -- | -- | | **274** | 3 | 0.84 | -- | -- | 0.74 | -- |
| **10** | 2 | 1.17 | -- | -- | -- | 0.76 | | **277** | 4 | -0.50 | 0.66 | -- | -- | -- |
| **16** | 2 | -1.34 | 0.61 | -- | -- | -- | | **323** | 3 | -0.67 | 0.65 | -- | -- | -- |
| **18** | 0 | -2.68 | -- | -- | -- | 0.53 | | **327** | 0 | 4.19 | -- | -- | -- | 0.94 |
| **24** | 4 | 0.23 | -- | -- | -- | 0.704 | | **328** | 0 | 2.01 | -- | -- | -- | 0.81 |
| **25** | 3 | -0.84 | 0.64 | -- | -- | -- | | **330** | 3 | 0.84 | -- | -- | 0.74 | -- |
| **30** | 3 | 0.84 | 0.74 | -- | -- | -- | | **356** | 3 | -0.97 | 0.632 | -- | -- | -- |
| **32** | 4 | -0.03 | 0.688 | -- | -- | -- | | **377** | 4 | 0.17 | 0.7 | -- | -- | -- |
| **33** | 0 | -5.70 | 0.35 | -- | -- | -- | | **379** | 4 | 0.17 | -- | 0.7 | -- | -- |
| **42** | 3 | 0.99 | 0.749 | -- | -- | -- | | **386** | 4 | -0.40 | -- | -- | -- | 0.666 |
| **45** | 2 | 1.29 | 0.767 | -- | -- | -- | | | | | | | | |
| **46** | 4 | 0.05 | -- | -- | -- | 0.693 | | | | | | | | |
| **50** | 3 | 0.67 | 0.73 | -- | -- | -- | | | | | | | | |
| **59** | 4 | 0.17 | -- | -- | -- | 0.7 | | | | | | | | |
| **70** | 1 | 1.68 | -- | -- | -- | 0.79 | | | | | | | | |
| **100** | 3 | 1.01 | -- | -- | -- | 0.75 | | | | | | | | |
| **102** | 4 | -0.50 | 0.66 | -- | -- | -- | | | | | | | | |
| **105** | 2 | -1.17 | 0.62 | -- | -- | -- | | | | | | | | |
| **113** | 4 | -0.34 | 0.67 | -- | -- | -- | | | | | | | | |
| **134** | 4 | 0.00 | -- | -- | -- | 0.69 | | | | | | | | |
| **138** | 2 | 1.09 | -- | -- | -- | 0.755 | | | | | | | | |
| **142** | 4 | -0.17 | -- | -- | -- | 0.68 | | | | | | | | |
| **146** | 0 | -2.41 | 0.546 | -- | -- | -- | | | | | | | | |
| **149** | 4 | 0.00 | 0.69 | -- | -- | -- | | | | | | | | |
| **180** | 1 | -1.73 | 0.587 | -- | -- | -- | | | | | | | | |
| **183** | 3 | 0.99 | -- | -- | -- | 0.749 | | | | | | | | |
| **190** | 4 | 0.00 | -- | -- | -- | 0.69 | | | | | | | | |
| **212** | 2 | 1.46 | -- | -- | -- | 0.777 | | | | | | | | |
| **219** | 0 | 2.58 | 0.844 | -- | -- | -- | | | | | | | | |
| **220** | 4 | 0.00 | 0.69 | -- | -- | -- | | | | | | | | |
| **230** | 4 | 0.00 | 0.69 | -- | -- | -- | | | | | | | | |
| **234** | 3 | -0.52 | 0.659 | -- | -- | -- | | | | | | | | |
| **247** | 4 | -0.50 | 0.66 | -- | -- | -- | | | | | | | | |
| **256** | 0 | -2.18 | 0.56 | -- | -- | -- | | | | | | | | |
| **259** | 4 | -0.17 | -- | -- | -- | 0.68 | | | | | | | | |
| **263** | 4 | 0.34 | -- | -- | -- | 0.71 | | | | | | | | |
| **265** | 4 | -0.50 | 0.66 | -- | -- | -- | | | | | | | | |
| **266** | 4 | -0.17 | -- | -- | -- | 0.68 | | | | | | | | |
| **269** | 3 | -0.84 | -- | -- | -- | 0.64 | | | | | | | | |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

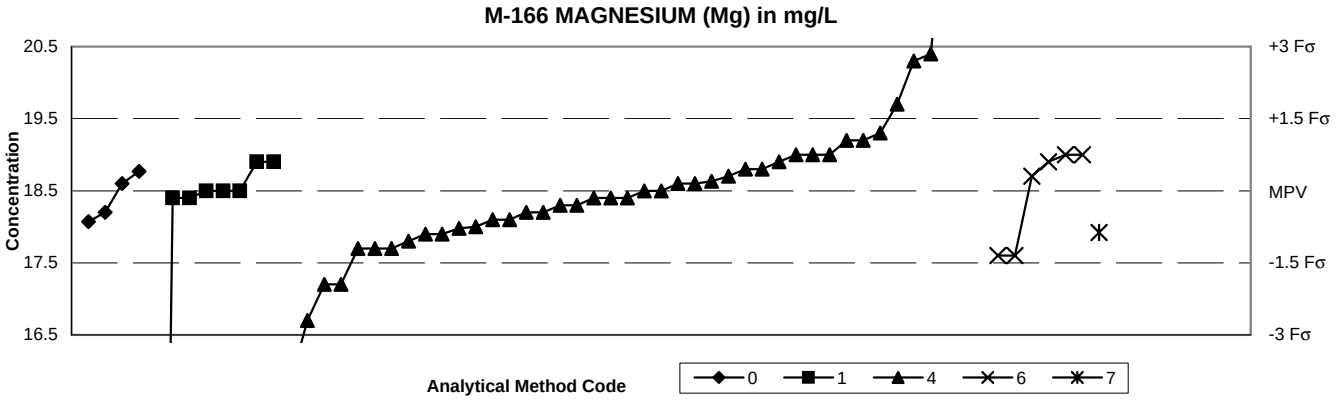



| SUMMARY | Methods | | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 7 | 12 | Method Codes | | |
| n = | 2 | 9 | 38 | 1 | 6 | 1 | 2 | 00 Other | **MPV =** | **4.37 mg/L** |
| Minimum = | 4.012 | 4.26 | 3.4 | 4.39 | 4.16 | 4.13 | 4.43 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.185 |
| Maximum = | 4.3 | 4.77 | 17.5 | | 4.53 | | 4.92 | 04 Inductively coupled plasma | Rating criterion = | 0.219 |
| Median = | | 4.42 | 4.34 | | 4.30 | | | 05 Direct current plasma | n = | 59 |
| F-pseudosigma = | | 0.059 | 0.193 | | 0.206 | | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 4.45 |
| | | | | | | | | 07 Ion chromatography | Lh = | 4.20 |
| | | | | | | | | 12 Flame emission | | |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 7 | 12 |
| **1** | 4 | 0.05 | -- | -- | 4.38 | -- | -- | -- | -- |
| **5** | 4 | 0.00 | -- | -- | 4.37 | -- | -- | -- | -- |
| **8** | 4 | -0.32 | -- | -- | 4.3 | -- | -- | -- | -- |
| **10** | 4 | -0.32 | -- | 4.3 | -- | -- | -- | -- | -- |
| **12** | 3 | 0.59 | -- | -- | 4.5 | -- | -- | -- | -- |
| **16** | 3 | 0.59 | -- | -- | 4.5 | -- | -- | -- | -- |
| **18** | 0 | -2.33 | -- | -- | 3.86 | -- | -- | -- | -- |
| **23** | 4 | -0.18 | -- | -- | 4.33 | -- | -- | -- | -- |
| **24** | 4 | 0.14 | -- | -- | 4.4 | -- | -- | -- | -- |
| **25** | 1 | -1.97 | -- | -- | 3.94 | -- | -- | -- | -- |
| **32** | 4 | 0.14 | -- | -- | -- | -- | 4.4 | -- | -- |
| **33** | 4 | 0.09 | -- | -- | -- | 4.39 | -- | -- | -- |
| **38** | 4 | 0.37 | -- | 4.45 | -- | -- | -- | -- | -- |
| **42** | 3 | -0.59 | -- | -- | 4.24 | -- | -- | -- | -- |
| **45** | 3 | -0.92 | -- | -- | -- | -- | 4.17 | -- | -- |
| **46** | 3 | -0.55 | -- | -- | 4.25 | -- | -- | -- | -- |
| **50** | 4 | -0.09 | -- | -- | 4.35 | -- | -- | -- | -- |
| **59** | 4 | 0.00 | -- | 4.37 | -- | -- | -- | -- | -- |
| **64** | 4 | 0.27 | -- | 4.43 | -- | -- | -- | -- | -- |
| **70** | 4 | -0.09 | -- | -- | 4.35 | -- | -- | -- | -- |
| **76** | 4 | 0.36 | -- | -- | -- | -- | 4.448 | -- | -- |
| **80** | 2 | 1.05 | -- | 4.6 | -- | -- | -- | -- | -- |
| **86** | 4 | 0.41 | -- | -- | 4.46 | -- | -- | -- | -- |
| **100** | 3 | 0.55 | -- | -- | 4.49 | -- | -- | -- | -- |
| **102** | 0 | -4.44 | -- | -- | 3.4 | -- | -- | -- | -- |
| **105** | 3 | 0.73 | -- | -- | 4.53 | -- | -- | -- | -- |
| **113** | 4 | 0.14 | -- | -- | 4.4 | -- | -- | -- | -- |
| **134** | 4 | 0.23 | -- | 4.42 | -- | -- | -- | -- | -- |
| **138** | 4 | -0.46 | -- | -- | 4.27 | -- | -- | -- | -- |
| **142** | 4 | 0.27 | -- | -- | 4.43 | -- | -- | -- | -- |
| **146** | 2 | 1.37 | -- | -- | 4.67 | -- | -- | -- | -- |
| **149** | 3 | -0.78 | -- | -- | -- | -- | 4.2 | -- | -- |
| **180** | 3 | -0.87 | -- | -- | 4.18 | -- | -- | -- | -- |
| **190** | 0 | 4.26 | -- | -- | 5.3 | -- | -- | -- | -- |
| **193** | 3 | -0.96 | -- | -- | -- | -- | 4.16 | -- | -- |
| **212** | 1 | -1.56 | -- | -- | 4.03 | -- | -- | -- | -- |
| **219** | 3 | -0.78 | -- | -- | 4.2 | -- | -- | -- | -- |
| **220** | 2 | -1.24 | -- | -- | 4.1 | -- | -- | -- | -- |
| **224** | 1 | -1.64 | 4.012 | -- | -- | -- | -- | -- | -- |
| **230** | 3 | 0.73 | -- | -- | -- | -- | 4.53 | -- | -- |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 7 | 12 |
| **234** | 4 | 0.37 | -- | -- | 4.45 | -- | -- | -- | -- |
| **247** | 0 | -2.56 | -- | -- | 3.81 | -- | -- | -- | -- |
| **256** | 2 | -1.10 | -- | -- | -- | -- | -- | 4.13 | -- |
| **259** | 4 | -0.18 | -- | -- | 4.33 | -- | -- | -- | -- |
| **265** | 4 | -0.32 | -- | -- | 4.3 | -- | -- | -- | -- |
| **266** | 4 | 0.27 | -- | -- | -- | -- | -- | -- | 4.43 |
| **273** | 1 | 1.51 | -- | -- | 4.7 | -- | -- | -- | -- |
| **274** | 0 | 2.52 | -- | -- | -- | -- | -- | -- | 4.92 |
| **277** | 1 | 1.83 | -- | 4.77 | -- | -- | -- | -- | -- |
| **279** | 4 | -0.32 | 4.3 | -- | -- | -- | -- | -- | -- |
| **323** | 4 | -0.46 | -- | -- | 4.27 | -- | -- | -- | -- |
| **326** | 3 | -0.87 | -- | -- | 4.18 | -- | -- | -- | -- |
| **328** | 0 | 2.70 | -- | -- | 4.96 | -- | -- | -- | -- |
| **341** | 4 | 0.14 | -- | 4.4 | -- | -- | -- | -- | -- |
| **366** | 4 | 0.05 | -- | -- | 4.38 | -- | -- | -- | -- |
| **377** | 4 | -0.50 | -- | 4.26 | -- | -- | -- | -- | -- |
| **379** | 0 | 60.09 | -- | -- | 17.5 | -- | -- | -- | -- |
| **383** | 3 | -0.78 | -- | -- | 4.2 | -- | -- | -- | -- |
| **386** | 1 | -1.65 | -- | -- | 4.01 | -- | -- | -- | -- |

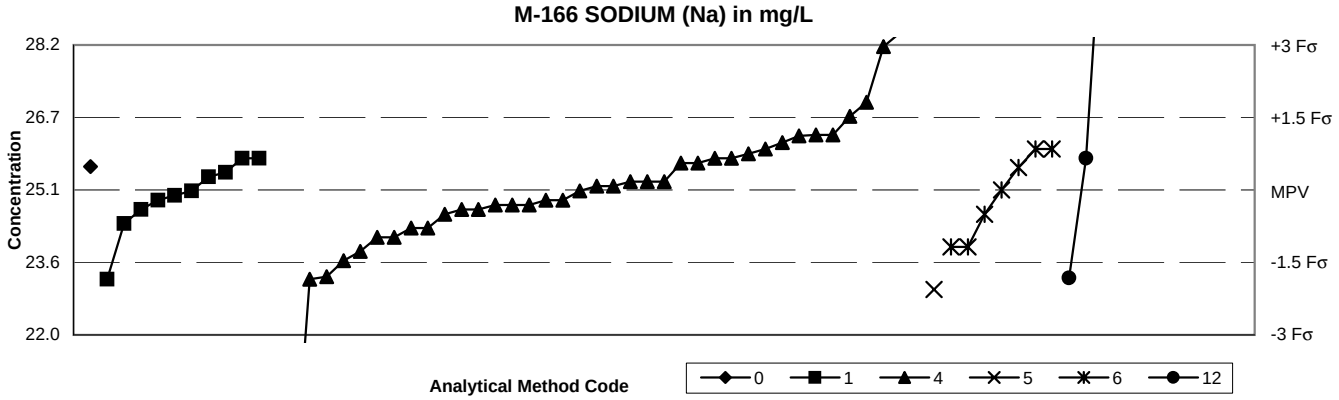
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 7 | 22 | Method Codes | | |
| n = | 4 | 8 | 41 | 1 | 6 | 1 | 1 | 00 Other | **MPV =** | **18.5 mg/L** |
| Minimum = | 18.07 | 1.399 | 15.84 | 20.95 | 17.6 | 17.92 | 24.71 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.67 |
| Maximum = | 18.77 | 18.9 | 26.1 | | 19 | | | 04 Inductively coupled plasma | Rating criterion = | 0.93 |
| Median = | | 18.5 | 18.4 | | 18.8 | | | 05 Direct current plasma | n = | 62 |
| F-pseudosigma = | | 0.22 | 0.76 | | 1.04 | | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 18.9 |
| | | | | | | | | 07 Ion chromatography | Lh = | 18.0 |
| | | | | | | | | 22 Colorimetric | | |

| | | | Method Codes | | | | | | | | | | Method Codes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 7 | 22 | **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 7 | 22 |
| **1** | 3 | -0.86 | -- | -- | 17.7 | -- | -- | -- | -- | **230** | 4 | 0.43 | -- | -- | -- | -- | 18.9 | -- | -- |
| **5** | 3 | -0.65 | -- | -- | 17.9 | -- | -- | -- | -- | **234** | 4 | 0.11 | -- | -- | 18.6 | -- | -- | -- | -- |
| **8** | 4 | -0.22 | -- | -- | 18.3 | -- | -- | -- | -- | **247** | 1 | -1.95 | -- | -- | 16.7 | -- | -- | -- | -- |
| **10** | 4 | -0.11 | -- | 18.4 | -- | -- | -- | -- | -- | **256** | 3 | -0.63 | -- | -- | -- | -- | -- | 17.92 | -- |
| **12** | 3 | 0.54 | -- | -- | 19 | -- | -- | -- | -- | **259** | 4 | 0.32 | -- | -- | 18.8 | -- | -- | -- | -- |
| **16** | 3 | -0.54 | -- | -- | 18 | -- | -- | -- | -- | **263** | 4 | 0.29 | 18.77 | -- | -- | -- | -- | -- | -- |
| **18** | 2 | -1.41 | -- | -- | 17.2 | -- | -- | -- | -- | **265** | 4 | -0.32 | -- | -- | 18.2 | -- | -- | -- | -- |
| **23** | 4 | 0.43 | -- | -- | 18.9 | -- | -- | -- | -- | **266** | 4 | 0.11 | 18.6 | -- | -- | -- | -- | -- | -- |
| **24** | 4 | 0.32 | -- | -- | 18.8 | -- | -- | -- | -- | **273** | 1 | 1.95 | -- | -- | 20.3 | -- | -- | -- | -- |
| **25** | 0 | -2.88 | -- | -- | 15.84 | -- | -- | -- | -- | **274** | 0 | 6.71 | -- | -- | -- | -- | -- | -- | 24.71 |
| **30** | 3 | 0.54 | -- | -- | -- | -- | 19 | -- | -- | **277** | 4 | 0.43 | -- | 18.9 | -- | -- | -- | -- | -- |
| **32** | 4 | 0.22 | -- | -- | -- | -- | 18.7 | -- | -- | **279** | 4 | -0.32 | 18.2 | -- | -- | -- | -- | -- | -- |
| **33** | 0 | 2.65 | -- | -- | -- | 20.95 | -- | -- | -- | **301** | 0 | -18.49 | -- | 1.399 | -- | -- | -- | -- | -- |
| **38** | 4 | 0.00 | -- | 18.5 | -- | -- | -- | -- | -- | **323** | 4 | -0.22 | -- | -- | 18.3 | -- | -- | -- | -- |
| **42** | 3 | -0.86 | -- | -- | 17.7 | -- | -- | -- | -- | **326** | 4 | 0.14 | -- | -- | 18.63 | -- | -- | -- | -- |
| **45** | 3 | -0.97 | -- | -- | -- | -- | 17.6 | -- | -- | **328** | 2 | 1.30 | -- | -- | 19.7 | -- | -- | -- | -- |
| **46** | 3 | -0.76 | -- | -- | 17.8 | -- | -- | -- | -- | **341** | 4 | 0.43 | -- | 18.9 | -- | -- | -- | -- | -- |
| **50** | 3 | 0.54 | -- | -- | 19 | -- | -- | -- | -- | **366** | 4 | -0.11 | -- | -- | 18.4 | -- | -- | -- | -- |
| **59** | 4 | -0.11 | -- | 18.4 | -- | -- | -- | -- | -- | **377** | 4 | 0.00 | -- | 18.5 | -- | -- | -- | -- | -- |
| **64** | 4 | -0.43 | -- | -- | 18.1 | -- | -- | -- | -- | **379** | 0 | 8.22 | -- | -- | 26.1 | -- | -- | -- | -- |
| **70** | 4 | 0.22 | -- | -- | 18.7 | -- | -- | -- | -- | **383** | 4 | -0.11 | -- | -- | 18.4 | -- | -- | -- | -- |
| **80** | 4 | 0.00 | -- | 18.5 | -- | -- | -- | -- | -- | **386** | 2 | -1.41 | -- | -- | 17.2 | -- | -- | -- | -- |
| **86** | 4 | 0.00 | -- | -- | 18.5 | -- | -- | -- | -- | | | | | | | | | | |
| **100** | 4 | -0.11 | -- | -- | 18.4 | -- | -- | -- | -- | | | | | | | | | | |
| **102** | 0 | 4.54 | -- | -- | 22.7 | -- | -- | -- | -- | | | | | | | | | | |
| **105** | 0 | 2.05 | -- | -- | 20.4 | -- | -- | -- | -- | | | | | | | | | | |
| **113** | 4 | 0.11 | -- | -- | 18.6 | -- | -- | -- | -- | | | | | | | | | | |
| **134** | 4 | -0.32 | -- | -- | 18.2 | -- | -- | -- | -- | | | | | | | | | | |
| **138** | 4 | 0.00 | -- | -- | 18.5 | -- | -- | -- | -- | | | | | | | | | | |
| **142** | 3 | 0.76 | -- | -- | 19.2 | -- | -- | -- | -- | | | | | | | | | | |
| **146** | 3 | 0.76 | -- | -- | 19.2 | -- | -- | -- | -- | | | | | | | | | | |
| **149** | 3 | 0.54 | -- | -- | -- | -- | 19 | -- | -- | | | | | | | | | | |
| **180** | 4 | -0.43 | -- | -- | 18.1 | -- | -- | -- | -- | | | | | | | | | | |
| **190** | 3 | 0.86 | -- | -- | 19.3 | -- | -- | -- | -- | | | | | | | | | | |
| **193** | 3 | -0.97 | -- | -- | -- | -- | 17.6 | -- | -- | | | | | | | | | | |
| **212** | 3 | -0.65 | -- | -- | 17.9 | -- | -- | -- | -- | | | | | | | | | | |
| **219** | 3 | -0.86 | -- | -- | 17.7 | -- | -- | -- | -- | | | | | | | | | | |
| **220** | 3 | -0.56 | -- | -- | 17.98 | -- | -- | -- | -- | | | | | | | | | | |
| **224** | 4 | -0.46 | 18.07 | -- | -- | -- | -- | -- | -- | | | | | | | | | | |
| **227** | 3 | 0.54 | -- | -- | 19 | -- | -- | -- | -- | | | | | | | | | | |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

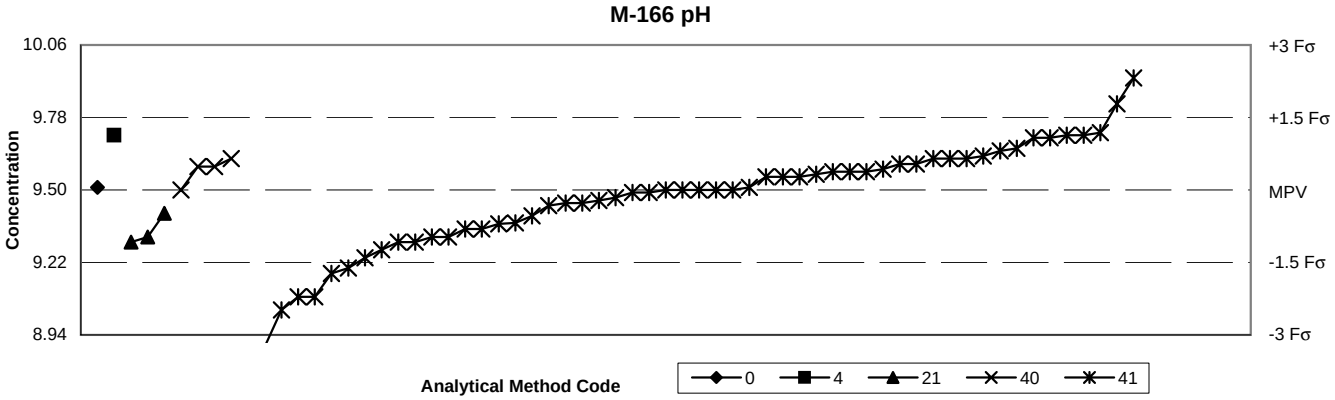



| SUMMARY | Methods | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 12 | Method Codes | | |
| n = | 1 | 10 | 39 | 1 | 7 | 3 | 00 Other | **MPV =** | **25.1 mg/L** |
| Minimum = | 25.62 | 23.2 | 5.2 | 22.98 | 23.9 | 23.23 | 01 Atomic absorption: direct, air | F-pseudosigma = | 1.04 |
| Maximum = | | 25.8 | 28.6 | | 26 | 31.33 | 04 Inductively coupled plasma | Rating criterion = | 1.26 |
| Median = | | 25.1 | 25.2 | | 25.1 | | 05 Direct current plasma | n = | 61 |
| F-pseudosigma = | | 0.59 | 1.11 | | 1.15 | | 06 Inductively coupled plasma / mass spectrometry | Uh = | 25.8 |
| | | | | | | | 12 Flame emission | Lh = | 24.4 |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **1** | 4 | -0.25 | -- | -- | 24.8 | -- | -- | -- |
| **5** | 4 | 0.06 | -- | -- | 25.2 | -- | -- | -- |
| **8** | 4 | 0.14 | -- | -- | 25.3 | -- | -- | -- |
| **10** | 4 | 0.22 | -- | 25.4 | -- | -- | -- | -- |
| **12** | 3 | 0.94 | -- | -- | 26.3 | -- | -- | -- |
| **16** | 3 | -0.81 | -- | -- | 24.1 | -- | -- | -- |
| **18** | 2 | -1.05 | -- | -- | 23.8 | -- | -- | -- |
| **23** | 4 | -0.18 | -- | -- | 24.9 | -- | -- | -- |
| **24** | 4 | -0.41 | -- | -- | 24.6 | -- | -- | -- |
| **25** | 3 | 0.92 | -- | -- | 26.28 | -- | -- | -- |
| **30** | 3 | 0.70 | -- | -- | -- | -- | 26 | -- |
| **32** | 4 | 0.38 | -- | -- | -- | -- | 25.6 | -- |
| **33** | 1 | -1.70 | -- | -- | -- | 22.98 | -- | -- |
| **38** | 3 | -0.57 | -- | 24.4 | -- | -- | -- | -- |
| **42** | 4 | -0.33 | -- | -- | 24.7 | -- | -- | -- |
| **45** | 3 | -0.97 | -- | -- | -- | -- | 23.9 | -- |
| **46** | 4 | -0.33 | -- | -- | 24.7 | -- | -- | -- |
| **50** | 3 | 0.54 | -- | -- | 25.8 | -- | -- | -- |
| **59** | 4 | -0.02 | -- | 25.1 | -- | -- | -- | -- |
| **64** | 3 | 0.54 | -- | 25.8 | -- | -- | -- | -- |
| **70** | 4 | 0.14 | -- | -- | 25.3 | -- | -- | -- |
| **76** | 4 | 0.00 | -- | -- | -- | -- | 25.12 | -- |
| **80** | 4 | -0.33 | -- | 24.7 | -- | -- | -- | -- |
| **86** | 4 | 0.46 | -- | -- | 25.7 | -- | -- | -- |
| **100** | 2 | 1.26 | -- | -- | 26.7 | -- | -- | -- |
| **102** | 0 | -5.43 | -- | -- | 18.3 | -- | -- | -- |
| **105** | 0 | 2.77 | -- | -- | 28.6 | -- | -- | -- |
| **113** | 3 | 0.62 | -- | -- | 25.9 | -- | -- | -- |
| **134** | 4 | -0.18 | -- | 24.9 | -- | -- | -- | -- |
| **138** | 3 | 0.54 | -- | -- | 25.8 | -- | -- | -- |
| **142** | 3 | 0.94 | -- | -- | 26.3 | -- | -- | -- |
| **146** | 2 | 1.50 | -- | -- | 27 | -- | -- | -- |
| **149** | 4 | -0.41 | -- | -- | -- | -- | 24.6 | -- |
| **180** | 4 | -0.25 | -- | -- | 24.8 | -- | -- | -- |
| **190** | 0 | 2.45 | -- | -- | 28.2 | -- | -- | -- |
| **193** | 3 | -0.97 | -- | -- | -- | -- | 23.9 | -- |
| **212** | 3 | -0.65 | -- | -- | 24.3 | -- | -- | -- |
| **219** | 3 | -0.65 | -- | -- | 24.3 | -- | -- | -- |
| **220** | 3 | -0.81 | -- | -- | 24.1 | -- | -- | -- |
| **224** | 2 | -1.48 | -- | -- | 23.26 | -- | -- | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 12 |
| **230** | 3 | 0.70 | -- | -- | -- | -- | 26 | -- |
| **234** | 4 | -0.25 | -- | -- | 24.8 | -- | -- | -- |
| **247** | 2 | -1.21 | -- | -- | 23.6 | -- | -- | -- |
| **256** | 2 | -1.50 | -- | -- | -- | -- | -- | 23.23 |
| **259** | 4 | 0.46 | -- | -- | 25.7 | -- | -- | -- |
| **265** | 4 | 0.06 | -- | -- | 25.2 | -- | -- | -- |
| **266** | 3 | 0.54 | -- | -- | -- | -- | -- | 25.8 |
| **273** | 3 | 0.70 | -- | -- | 26 | -- | -- | -- |
| **274** | 0 | 4.94 | -- | -- | -- | -- | -- | 31.33 |
| **277** | 3 | 0.54 | -- | 25.8 | -- | -- | -- | -- |
| **279** | 4 | 0.40 | 25.62 | -- | -- | -- | -- | -- |
| **321** | 1 | -1.53 | -- | 23.2 | -- | -- | -- | -- |
| **323** | 4 | -0.02 | -- | -- | 25.1 | -- | -- | -- |
| **326** | 3 | 0.81 | -- | -- | 26.14 | -- | -- | -- |
| **328** | 0 | 2.69 | -- | -- | 28.5 | -- | -- | -- |
| **341** | 4 | -0.10 | -- | 25 | -- | -- | -- | -- |
| **366** | 4 | -0.18 | -- | -- | 24.9 | -- | -- | -- |
| **377** | 4 | 0.30 | -- | 25.5 | -- | -- | -- | -- |
| **379** | 0 | -15.86 | -- | -- | 5.2 | -- | -- | -- |
| **383** | 4 | 0.14 | -- | -- | 25.3 | -- | -- | -- |
| **386** | 1 | -1.53 | -- | -- | 23.2 | -- | -- | -- |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

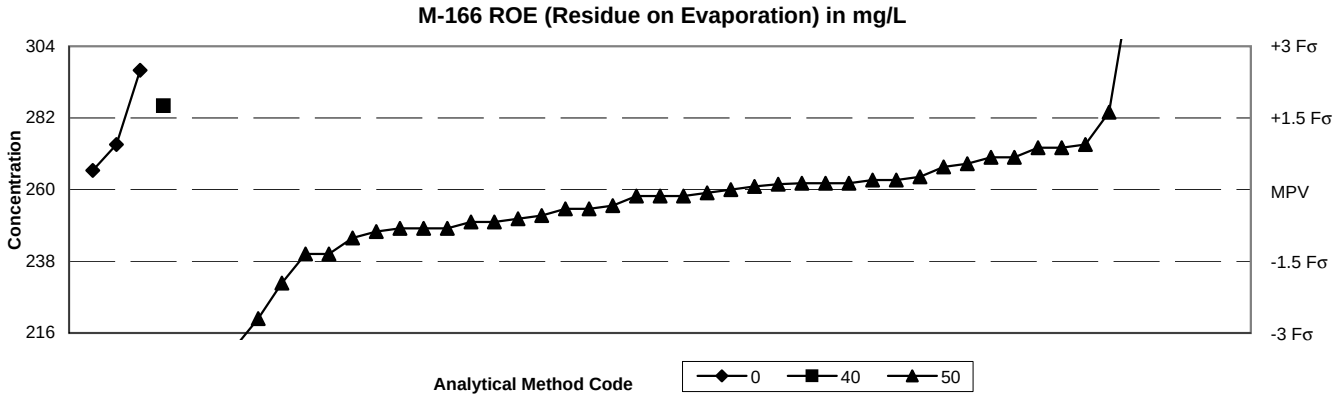



| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 4 | 21 | 40 | 41 | Method Codes | | |
| n = | 1 | 1 | 3 | 4 | 54 | 00 Other | **MPV =** | **9.50** |
| Minimum = | 9.51 | 9.71 | 9.3 | 9.5 | 6.94 | 04 Inductively coupled plasma | F-pseudosigma = | 0.185 |
| Maximum = | | | 9.41 | 9.62 | 9.93 | 21 Titration: electrometric | Rating criterion = | 0.475 |
| Median = | | | | | 9.50 | 40 Ion selective electrode | n = | 63 |
| F-pseudosigma = | | | | | 0.185 | 41 Electrometric | Uh = | 9.60 |
| | | | | | | | Lh = | 9.35 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 21 | 40 | 41 |
| **1** | 4 | 0.15 | -- | -- | -- | -- | 9.57 |
| **5** | 3 | -0.86 | -- | -- | -- | -- | 9.09 |
| **8** | 4 | 0.00 | -- | -- | -- | -- | 9.5 |
| **10** | 4 | -0.42 | -- | -- | -- | -- | 9.3 |
| **12** | 2 | -1.26 | -- | -- | -- | -- | 8.9 |
| **16** | 4 | -0.13 | -- | -- | -- | -- | 9.44 |
| **23** | 4 | 0.42 | -- | -- | -- | -- | 9.7 |
| **24** | 4 | 0.11 | -- | -- | -- | -- | 9.55 |
| **25** | 4 | -0.38 | -- | -- | 9.32 | -- | -- |
| **30** | 4 | 0.32 | -- | -- | -- | -- | 9.65 |
| **32** | 4 | 0.44 | -- | -- | -- | -- | 9.71 |
| **33** | 4 | -0.48 | -- | -- | -- | -- | 9.27 |
| **38** | 4 | -0.42 | -- | -- | -- | -- | 9.3 |
| **42** | 0 | -5.39 | -- | -- | -- | -- | 6.94 |
| **45** | 4 | 0.25 | -- | -- | -- | -- | 9.62 |
| **46** | 4 | -0.27 | -- | -- | -- | -- | 9.37 |
| **50** | 4 | -0.21 | -- | -- | -- | -- | 9.4 |
| **59** | 4 | -0.27 | -- | -- | -- | -- | 9.374 |
| **64** | 4 | 0.25 | -- | -- | -- | -- | 9.62 |
| **70** | 4 | -0.02 | -- | -- | -- | -- | 9.49 |
| **80** | 3 | -0.67 | -- | -- | -- | -- | 9.18 |
| **86** | 4 | -0.38 | -- | -- | -- | -- | 9.32 |
| **89** | 3 | -0.55 | -- | -- | -- | -- | 9.24 |
| **91** | 4 | -0.02 | -- | -- | -- | -- | 9.49 |
| **100** | 4 | 0.19 | -- | -- | -- | 9.59 | -- |
| **105** | 4 | 0.00 | -- | -- | -- | -- | 9.5 |
| **113** | 4 | 0.21 | -- | -- | -- | -- | 9.6 |
| **118** | 3 | -0.63 | -- | -- | -- | -- | 9.2 |
| **134** | 4 | 0.19 | -- | -- | -- | 9.59 | -- |
| **138** | 4 | 0.46 | -- | -- | -- | -- | 9.72 |
| **142** | 4 | 0.17 | -- | -- | -- | -- | 9.58 |
| **146** | 4 | 0.44 | -- | -- | -- | -- | 9.71 |
| **180** | 4 | 0.00 | -- | -- | -- | 9.5 | -- |
| **183** | 4 | 0.25 | -- | -- | -- | 9.62 | -- |
| **190** | 4 | -0.19 | -- | -- | 9.41 | -- | -- |
| **193** | 4 | 0.34 | -- | -- | -- | -- | 9.66 |
| **212** | 3 | 0.69 | -- | -- | -- | -- | 9.83 |
| **224** | 4 | -0.08 | -- | -- | -- | -- | 9.46 |
| **227** | 4 | 0.02 | 9.51 | -- | -- | -- | -- |
| **230** | 4 | 0.00 | -- | -- | -- | -- | 9.5 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 21 | 40 | 41 |
| **234** | 4 | 0.44 | -- | 9.71 | -- | -- | -- |
| **247** | 4 | 0.00 | -- | -- | -- | -- | 9.5 |
| **256** | 4 | 0.00 | -- | -- | -- | -- | 9.5 |
| **259** | 4 | -0.32 | -- | -- | -- | -- | 9.35 |
| **263** | 4 | 0.11 | -- | -- | -- | -- | 9.55 |
| **266** | 4 | 0.13 | -- | -- | -- | -- | 9.56 |
| **269** | 4 | 0.25 | -- | -- | -- | -- | 9.62 |
| **273** | 4 | 0.15 | -- | -- | -- | -- | 9.57 |
| **274** | 4 | -0.38 | -- | -- | -- | -- | 9.32 |
| **276** | 4 | 0.11 | -- | -- | -- | -- | 9.55 |
| **277** | 4 | 0.21 | -- | -- | -- | -- | 9.6 |
| **307** | 4 | 0.27 | -- | -- | -- | -- | 9.63 |
| **321** | 4 | -0.06 | -- | -- | -- | -- | 9.47 |
| **323** | 4 | 0.42 | -- | -- | -- | -- | 9.7 |
| **328** | 3 | -0.97 | -- | -- | -- | -- | 9.04 |
| **330** | 4 | -0.42 | -- | -- | 9.3 | -- | -- |
| **333** | 4 | 0.02 | -- | -- | -- | -- | 9.51 |
| **341** | 4 | -0.11 | -- | -- | -- | -- | 9.45 |
| **366** | 3 | -0.86 | -- | -- | -- | -- | 9.09 |
| **377** | 4 | 0.15 | -- | -- | -- | -- | 9.57 |
| **379** | 4 | -0.32 | -- | -- | -- | -- | 9.35 |
| **386** | 4 | -0.11 | -- | -- | -- | -- | 9.45 |
| **389** | 3 | 0.91 | -- | -- | -- | -- | 9.93 |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

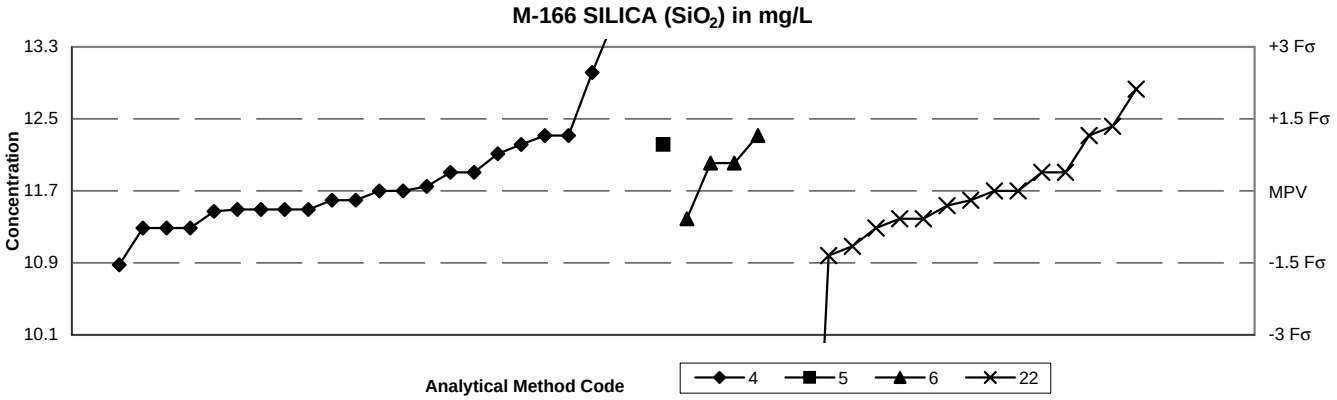



| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 0 | 40 | 50 | Method Codes | | |
| n = | 3 | 1 | 43 | 00 Other | **MPV =** | **260 mg/L** |
| Minimum = | 266 | 286 | 127 | 40 Ion selective electrode | F-pseudosigma = | 14.8 |
| Maximum = | 297 | | 380 | 50 Gravimetric | n = | 47 |
| Median = | | | 258 | | Uh = | 269 |
| F-pseudosigma = | | | 13.0 | | Lh = | 249 |

| Lab | Rating | Z-value | Method Codes 0 | 40 | 50 |
|---|---|---|---|---|---|
| **1** | 4 | 0.11 | -- | -- | 261.7 |
| **5** | 3 | 0.54 | -- | -- | 268 |
| **8** | 3 | 0.88 | -- | -- | 273 |
| **10** | 3 | -0.61 | -- | -- | 251 |
| **16** | 4 | 0.13 | -- | -- | 262 |
| **18** | 0 | 8.09 | -- | -- | 380 |
| **25** | 3 | -0.67 | -- | -- | 250 |
| **32** | 3 | -0.54 | -- | -- | 252 |
| **45** | 0 | -2.70 | -- | -- | 220 |
| **46** | 4 | -0.40 | -- | -- | 254 |
| **50** | 4 | 0.20 | -- | -- | 263 |
| **59** | 4 | -0.34 | -- | -- | 255 |
| **70** | 3 | 0.67 | -- | -- | 270 |
| **80** | 3 | -0.67 | -- | -- | 250 |
| **89** | 3 | -0.88 | -- | -- | 247 |
| **100** | 0 | 6.34 | -- | -- | 354 |
| **105** | 0 | 4.59 | -- | -- | 328 |
| **113** | 3 | 0.67 | -- | -- | 270 |
| **118** | 4 | 0.27 | -- | -- | 264 |
| **134** | 4 | -0.13 | -- | -- | 258 |
| **138** | 4 | -0.40 | -- | -- | 254 |
| **142** | 1 | -1.96 | -- | -- | 231 |
| **146** | 2 | -1.35 | -- | -- | 240 |
| **183** | 1 | 1.75 | -- | 286 | -- |
| **190** | 4 | 0.07 | -- | -- | 261 |
| **212** | 2 | -1.01 | -- | -- | 245 |
| **224** | 4 | 0.20 | -- | -- | 263 |
| **227** | 3 | 0.94 | 274 | -- | -- |
| **234** | 3 | -0.81 | -- | -- | 248 |
| **247** | 3 | 0.88 | -- | -- | 273 |
| **256** | 4 | -0.13 | -- | -- | 258 |
| **259** | 4 | -0.07 | -- | -- | 259 |
| **263** | 0 | -4.18 | -- | -- | 198 |
| **266** | 4 | 0.40 | 266 | -- | -- |
| **273** | 4 | 0.13 | -- | -- | 262 |
| **276** | 0 | 2.50 | 297 | -- | -- |
| **277** | 3 | -0.81 | -- | -- | 248 |
| **323** | 3 | -0.81 | -- | -- | 248 |
| **327** | 0 | -8.97 | -- | -- | 127 |
| **328** | 2 | -1.35 | -- | -- | 240 |

| Lab | Rating | Z-value | Method Codes 0 | 40 | 50 |
|---|---|---|---|---|---|
| **341** | 1 | 1.62 | -- | -- | 284 |
| **356** | 4 | 0.47 | -- | -- | 267 |
| **366** | 4 | 0.00 | -- | -- | 260 |
| **377** | 3 | 0.94 | -- | -- | 274 |
| **379** | 0 | -3.31 | -- | -- | 211 |
| **386** | 4 | 0.13 | -- | -- | 262 |
| **388** | 4 | -0.13 | -- | -- | 258 |

**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***

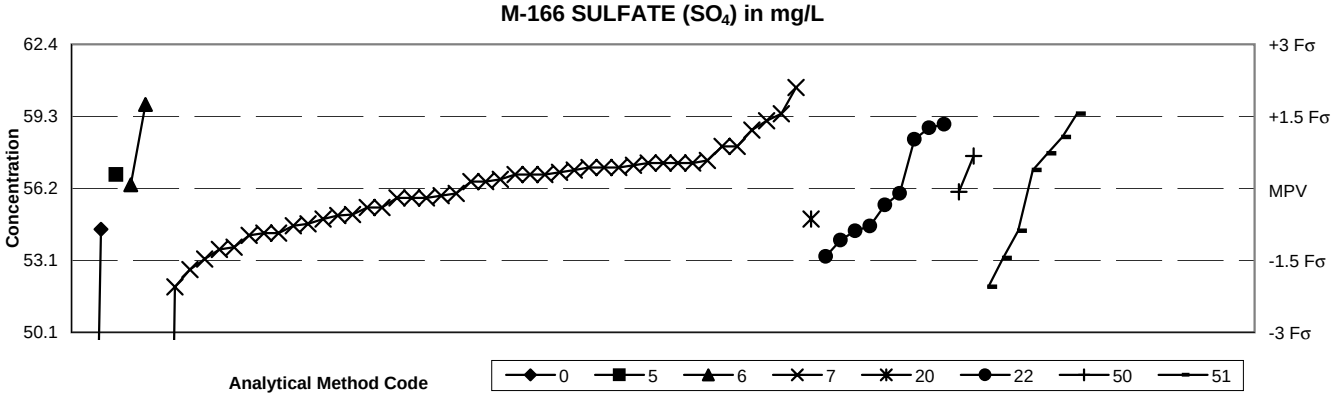



| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 4 | 5 | 6 | 22 | Method Codes | | |
| n = | 1 | 23 | 1 | 4 | 16 | 00 Other | **MPV =** | **11.7 mg/L** |
| Minimum = | 6.02 | 10.9 | 12.2 | 11.4 | 4.82 | 04 Inductively coupled plasma | F-pseudosigma = | 0.52 |
| Maximum = | | 24 | | 12.3 | 12.8 | 05 Direct current plasma | Rating criterion = | 0.59 |
| Median = | | 11.7 | | | 11.6 | 06 Inductively coupled plasma / mass spectrometry | n = | 45 |
| F-pseudosigma = | | 0.48 | | | 0.52 | 22 Colorimetric | Uh = | 12.1 |
| | | | | | | | Lh = | 11.4 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 5 | 6 | 22 |
| **1** | 3 | -0.51 | -- | -- | -- | -- | 11.4 |
| **5** | 4 | 0.00 | -- | 11.7 | -- | -- | -- |
| **8** | 4 | -0.34 | -- | 11.5 | -- | -- | -- |
| **10** | 3 | -0.51 | -- | -- | -- | -- | 11.4 |
| **18** | 3 | -0.68 | -- | -- | -- | -- | 11.3 |
| **24** | 3 | 0.85 | -- | 12.2 | -- | -- | -- |
| **25** | 4 | -0.38 | -- | 11.48 | -- | -- | -- |
| **30** | 3 | 0.51 | -- | -- | -- | 12 | -- |
| **32** | 2 | 1.03 | -- | -- | -- | 12.3 | -- |
| **33** | 3 | 0.85 | -- | -- | 12.2 | -- | -- |
| **38** | 4 | -0.27 | -- | -- | -- | -- | 11.54 |
| **42** | 2 | -1.37 | -- | 10.9 | -- | -- | -- |
| **45** | 3 | -0.51 | -- | -- | -- | 11.4 | -- |
| **50** | 3 | -0.68 | -- | 11.3 | -- | -- | -- |
| **59** | 4 | 0.00 | -- | -- | -- | -- | 11.7 |
| **64** | 4 | -0.34 | -- | 11.5 | -- | -- | -- |
| **70** | 4 | 0.34 | -- | -- | -- | -- | 11.9 |
| **100** | 0 | 3.25 | -- | 13.6 | -- | -- | -- |
| **102** | 2 | -1.03 | -- | -- | -- | -- | 11.1 |
| **105** | 4 | 0.08 | -- | 11.75 | -- | -- | -- |
| **113** | 4 | -0.17 | -- | -- | -- | -- | 11.6 |
| **134** | 4 | -0.17 | -- | 11.6 | -- | -- | -- |
| **138** | 2 | 1.03 | -- | -- | -- | -- | 12.3 |
| **142** | 2 | 1.03 | -- | 12.3 | -- | -- | -- |
| **190** | 4 | 0.00 | -- | -- | -- | -- | 11.7 |
| **193** | 2 | 1.20 | -- | -- | -- | -- | 12.4 |
| **212** | 4 | 0.34 | -- | 11.9 | -- | -- | -- |
| **219** | 3 | -0.68 | -- | 11.3 | -- | -- | -- |
| **224** | 0 | -10.11 | -- | -- | -- | -- | 5.784 |
| **230** | 3 | 0.51 | -- | -- | -- | 12 | -- |
| **234** | 4 | -0.34 | -- | 11.5 | -- | -- | -- |
| **247** | 1 | 1.88 | -- | -- | -- | -- | 12.8 |
| **256** | 4 | 0.00 | -- | 11.7 | -- | -- | -- |
| **259** | 3 | 0.68 | -- | 12.1 | -- | -- | -- |
| **265** | 4 | -0.34 | -- | 11.5 | -- | -- | -- |
| **266** | 4 | 0.34 | -- | -- | -- | -- | 11.9 |
| **273** | 0 | 2.19 | -- | 12.98 | -- | -- | -- |
| **274** | 0 | -11.76 | -- | -- | -- | -- | 4.82 |
| **301** | 0 | -9.71 | 6.02 | -- | -- | -- | -- |
| **323** | 4 | -0.17 | -- | 11.6 | -- | -- | -- |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 5 | 6 | 22 |
| **327** | 2 | -1.20 | -- | -- | -- | -- | 11 |
| **328** | 4 | 0.34 | -- | 11.9 | -- | -- | -- |
| **333** | 2 | 1.03 | -- | 12.3 | -- | -- | -- |
| **377** | 3 | -0.68 | -- | 11.3 | -- | -- | -- |
| **386** | 0 | 21.03 | -- | 24 | -- | -- | -- |

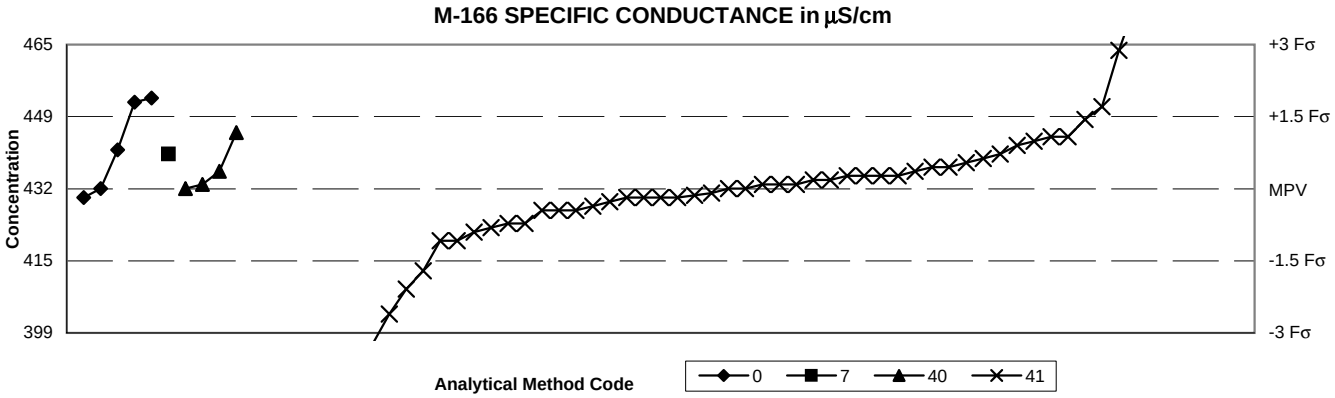
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 5 | 6 | 7 | 20 | 22 | 50 | 51 | Method Codes | |
| n = | 2 | 1 | 2 | 44 | 1 | 9 | 2 | 7 | 00 Other | **MPV = 56.2 mg/L** |
| Minimum = | 20.4 | 56.8 | 56.36 | 9.246 | 54.9 | 53.3 | 56.07 | 52 | 05 Direct current plasma | F-pseudosigma = 2.05 |
| Maximum = | 54.47 | | 59.8 | 60.52 | | 58.95 | 57.6 | 59.4 | 06 Inductively coupled plasma / mass spectrometry | Rating criterion = 2.81 |
| Median = | | | | 56.5 | | 55.5 | | 58.1 | 07 Ion chromatography | n = 68 |
| F-pseudosigma = | | | | 1.82 | | 2.89 | | | 20 Titration: colorimetric | Uh = 57.3 |
| | | | | | | | | | 22 Colorimetric | Lh = 54.5 |
| | | | | | | | | | 50 Gravimetric | |
| | | | | | | | | | 51 Turbidimetric | |

| | | | Method Codes | | | | | | | | | | | | Method Codes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 5 | 6 | 7 | 20 | 22 | 50 | 51 | **Lab** | Rating | Z-value | 0 | 5 | 6 | 7 | 20 | 22 | 50 | 51 |
| **1** | 4 | -0.40 | -- | -- | -- | 55.09 | -- | -- | -- | -- | **234** | 3 | -0.54 | -- | -- | -- | 54.7 | -- | -- | -- | -- |
| **4** | 3 | 0.88 | -- | -- | -- | 58.7 | -- | -- | -- | -- | **247** | 4 | 0.21 | -- | -- | -- | 56.8 | -- | -- | -- | -- |
| **5** | 2 | -1.24 | -- | -- | -- | 52.74 | -- | -- | -- | -- | **254** | 4 | -0.08 | -- | -- | -- | 56 | -- | -- | -- | -- |
| **8** | 3 | -0.93 | -- | -- | -- | 53.6 | -- | -- | -- | -- | **256** | 4 | -0.41 | -- | -- | -- | 55.05 | -- | -- | -- | -- |
| **10** | 4 | 0.39 | -- | -- | -- | 57.3 | -- | -- | -- | -- | **259** | 4 | 0.24 | -- | -- | -- | 56.9 | -- | -- | -- | -- |
| **12** | 3 | -0.79 | -- | -- | -- | -- | -- | 54 | -- | -- | **263** | 3 | 0.53 | -- | -- | -- | -- | -- | -- | -- | 57.7 |
| **16** | 2 | 1.13 | -- | -- | -- | -- | -- | -- | -- | 59.4 | **265** | 4 | 0.35 | -- | -- | -- | 57.2 | -- | -- | -- | -- |
| **18** | 3 | -0.65 | -- | -- | -- | -- | -- | 54.4 | -- | -- | **266** | 4 | 0.28 | -- | -- | -- | -- | -- | -- | -- | 57 |
| **24** | 4 | -0.25 | -- | -- | -- | -- | -- | 55.5 | -- | -- | **273** | 3 | -0.62 | 54.47 | -- | -- | -- | -- | -- | -- | -- |
| **25** | 3 | -0.68 | -- | -- | -- | 54.3 | -- | -- | -- | -- | **274** | 2 | -1.06 | -- | -- | -- | -- | -- | -- | -- | 53.23 |
| **30** | 4 | 0.39 | -- | -- | -- | 57.3 | -- | -- | -- | -- | **276** | 4 | -0.05 | -- | -- | -- | -- | -- | -- | 56.07 | -- |
| **32** | 4 | 0.10 | -- | -- | -- | 56.5 | -- | -- | -- | -- | **277** | 3 | 0.64 | -- | -- | -- | 58 | -- | -- | -- | -- |
| **33** | 1 | 1.53 | -- | -- | -- | 60.52 | -- | -- | -- | -- | **301** | 0 | -16.71 | -- | -- | -- | 9.246 | -- | -- | -- | -- |
| **42** | 4 | 0.31 | -- | -- | -- | 57.1 | -- | -- | -- | -- | **307** | 3 | -0.65 | -- | -- | -- | -- | -- | -- | -- | 54.4 |
| **45** | 2 | 1.28 | -- | -- | 59.8 | -- | -- | -- | -- | -- | **321** | 4 | 0.31 | -- | -- | -- | 57.1 | -- | -- | -- | -- |
| **46** | 3 | 0.74 | -- | -- | -- | -- | -- | 58.3 | -- | -- | **323** | 4 | -0.29 | -- | -- | -- | 55.4 | -- | -- | -- | -- |
| **50** | 2 | 1.13 | -- | -- | -- | 59.4 | -- | -- | -- | -- | **326** | 4 | -0.15 | -- | -- | -- | 55.8 | -- | -- | -- | -- |
| **59** | 4 | 0.10 | -- | -- | -- | 56.5 | -- | -- | -- | -- | **327** | 2 | -1.50 | -- | -- | -- | -- | -- | -- | -- | 52 |
| **64** | 4 | 0.21 | -- | -- | -- | 56.8 | -- | -- | -- | -- | **328** | 2 | -1.50 | -- | -- | -- | 52 | -- | -- | -- | -- |
| **70** | 2 | -1.07 | -- | -- | -- | 53.2 | -- | -- | -- | -- | **330** | 2 | -1.04 | -- | -- | -- | -- | -- | 53.3 | -- | -- |
| **76** | 4 | 0.05 | -- | -- | 56.36 | -- | -- | -- | -- | -- | **341** | 4 | -0.08 | -- | -- | -- | -- | -- | 56 | -- | -- |
| **80** | 4 | -0.47 | -- | -- | -- | -- | 54.9 | -- | -- | -- | **356** | 4 | 0.31 | -- | -- | -- | 57.1 | -- | -- | -- | -- |
| **89** | 3 | -0.68 | -- | -- | -- | 54.3 | -- | -- | -- | -- | **366** | 3 | 0.92 | -- | -- | -- | -- | -- | 58.8 | -- | -- |
| **100** | 4 | 0.39 | -- | -- | -- | 57.3 | -- | -- | -- | -- | **377** | 4 | 0.21 | -- | 56.8 | -- | -- | -- | -- | -- | -- |
| **102** | 3 | 0.64 | -- | -- | -- | 58 | -- | -- | -- | -- | **379** | 3 | 0.78 | -- | -- | -- | -- | -- | -- | -- | 58.4 |
| **105** | 4 | 0.14 | -- | -- | -- | 56.6 | -- | -- | -- | -- | **383** | 0 | -12.74 | 20.4 | -- | -- | -- | -- | -- | -- | -- |
| **113** | 3 | -0.89 | -- | -- | -- | 53.7 | -- | -- | -- | -- | **386** | 4 | 0.49 | -- | -- | -- | -- | -- | -- | 57.6 | -- |
| **134** | 4 | -0.15 | -- | -- | -- | 55.8 | -- | -- | -- | -- | **388** | 4 | -0.11 | -- | -- | -- | 55.9 | -- | -- | -- | -- |
| **138** | 4 | 0.42 | -- | -- | -- | 57.4 | -- | -- | -- | -- | | | | | | | | | | | |
| **142** | 4 | -0.15 | -- | -- | -- | 55.8 | -- | -- | -- | -- | | | | | | | | | | | |
| **146** | 4 | 0.28 | -- | -- | -- | 57 | -- | -- | -- | -- | | | | | | | | | | | |
| **149** | 4 | 0.39 | -- | -- | -- | 57.3 | -- | -- | -- | -- | | | | | | | | | | | |
| **180** | 2 | 1.03 | -- | -- | -- | 59.1 | -- | -- | -- | -- | | | | | | | | | | | |
| **183** | 3 | -0.57 | -- | -- | -- | -- | -- | 54.6 | -- | -- | | | | | | | | | | | |
| **190** | 3 | -0.72 | -- | -- | -- | 54.2 | -- | -- | -- | -- | | | | | | | | | | | |
| **208** | 4 | -0.47 | -- | -- | -- | 54.9 | -- | -- | -- | -- | | | | | | | | | | | |
| **212** | 4 | -0.29 | -- | -- | -- | 55.4 | -- | -- | -- | -- | | | | | | | | | | | |
| **219** | 3 | -0.57 | -- | -- | -- | 54.61 | -- | -- | -- | -- | | | | | | | | | | | |
| **220** | 3 | 0.97 | -- | -- | -- | -- | -- | 58.95 | -- | -- | | | | | | | | | | | |
| **230** | 4 | 0.21 | -- | -- | -- | 56.8 | -- | -- | -- | -- | | | | | | | | | | | |

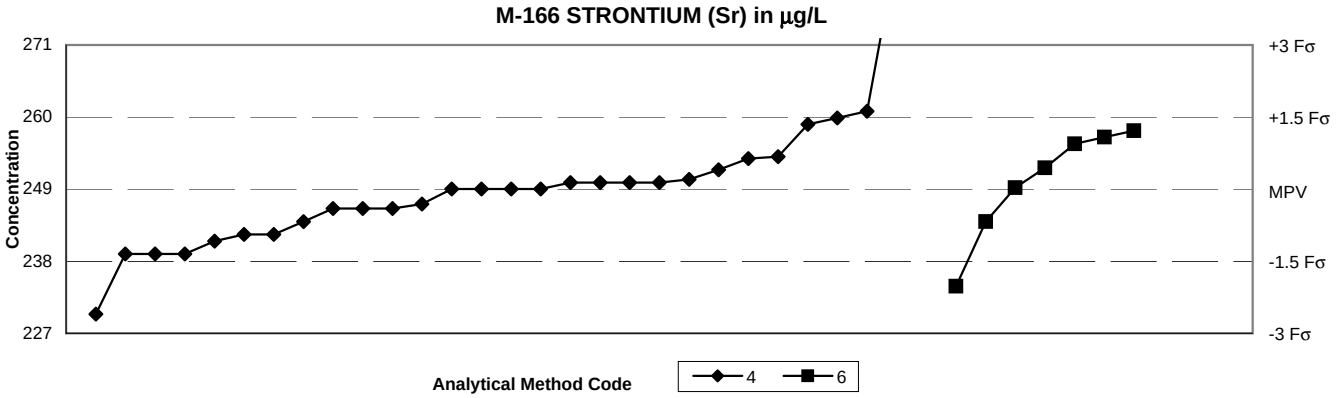
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 0 | 7 | 40 | 41 | Method Codes | | |
| n = | 5 | 1 | 4 | 55 | 00 Other | **MPV =** | **432 µS/cm** |
| Minimum = | 430 | 440 | 432 | 40.8 | 07 Ion chromatography | F-pseudosigma = | 11.1 |
| Maximum = | 453 | | 445 | 486 | 40 Ion selective electrode | Rating criterion = | 21.6 |
| Median = | 441 | | | 431 | 41 Electrometric | n = | 65 |
| F-pseudosigma = | 14.8 | | | 10.7 | | Uh = | 439 |
| | | | | | | Lh = | 424 |

| | | | Method Codes | | | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 40 | 41 | | **Lab** | Rating | Z-value | 0 | 7 | 40 | 41 | |
| **1** | 2 | -1.07 | -- | -- | -- | 408.8 | | **230** | 4 | -0.37 | -- | -- | -- | 424 | |
| **5** | 4 | -0.09 | -- | -- | -- | 430 | | **234** | 4 | -0.37 | -- | -- | -- | 424 | |
| **8** | 1 | -1.85 | -- | -- | -- | 392 | | **247** | 4 | 0.14 | -- | -- | -- | 435 | |
| **10** | 4 | 0.05 | -- | -- | -- | 433 | | **256** | 3 | 0.88 | -- | -- | -- | 451 | |
| **12** | 0 | 2.50 | -- | -- | -- | 486 | | **259** | 4 | 0.00 | -- | -- | -- | 432 | |
| **16** | 4 | -0.09 | -- | -- | -- | 430 | | **263** | 4 | 0.14 | -- | -- | -- | 435 | |
| **18** | 0 | -2.73 | -- | -- | -- | 373 | | **266** | 4 | -0.23 | -- | -- | -- | 427 | |
| **24** | 4 | 0.14 | -- | -- | -- | 435 | | **269** | 4 | 0.05 | -- | -- | -- | 433 | |
| **25** | 4 | -0.09 | -- | -- | -- | 430 | | **273** | 4 | 0.51 | -- | -- | -- | 443 | |
| **32** | 3 | 0.56 | -- | -- | -- | 444 | | **274** | 3 | -0.56 | -- | -- | -- | 420 | |
| **33** | 0 | 2.09 | -- | -- | -- | 477.1 | | **276** | 4 | -0.09 | 430 | -- | -- | -- | |
| **38** | 4 | -0.07 | -- | -- | -- | 430.5 | | **277** | 1 | -1.67 | -- | -- | -- | 396 | |
| **42** | 0 | -6.02 | -- | -- | -- | 302 | | **307** | 3 | -0.56 | -- | -- | -- | 420 | |
| **45** | 4 | 0.23 | -- | -- | -- | 437 | | **321** | 1 | 1.99 | -- | -- | -- | 475 | |
| **46** | 4 | -0.05 | -- | -- | -- | 431 | | **323** | 4 | -0.09 | -- | -- | -- | 430 | |
| **50** | 4 | 0.19 | -- | -- | -- | 436 | | **327** | 3 | 0.56 | -- | -- | -- | 444 | |
| **59** | 4 | 0.05 | -- | -- | -- | 433 | | **328** | 4 | -0.14 | -- | -- | -- | 429 | |
| **64** | 2 | 1.48 | -- | -- | -- | 464 | | **333** | 4 | 0.37 | -- | -- | -- | 440 | |
| **70** | 4 | 0.14 | -- | -- | -- | 435 | | **341** | 4 | 0.23 | -- | -- | -- | 437 | |
| **76** | 4 | 0.05 | -- | -- | 433 | -- | | **356** | 4 | 0.28 | -- | -- | -- | 438 | |
| **80** | 4 | 0.09 | -- | -- | -- | 434 | | **366** | 4 | 0.42 | 441 | -- | -- | -- | |
| **86** | 3 | 0.93 | 452 | -- | -- | -- | | **377** | 4 | 0.37 | -- | 440 | -- | -- | |
| **89** | 0 | -4.54 | -- | -- | -- | 334 | | **379** | 4 | 0.19 | -- | -- | 436 | -- | |
| **91** | 3 | -0.88 | -- | -- | -- | 413 | | **386** | 4 | 0.09 | -- | -- | -- | 434 | |
| **100** | 4 | -0.46 | -- | -- | -- | 422 | | **389** | 0 | -3.33 | -- | -- | -- | 360 | |
| **102** | 3 | 0.97 | 453 | -- | -- | -- | | | | | | | | | |
| **105** | 4 | -0.23 | -- | -- | -- | 427 | | | | | | | | | |
| **113** | 3 | 0.74 | -- | -- | -- | 448 | | | | | | | | | |
| **118** | 4 | -0.42 | -- | -- | -- | 423 | | | | | | | | | |
| **134** | 4 | 0.00 | -- | -- | -- | 432 | | | | | | | | | |
| **138** | 4 | 0.32 | -- | -- | -- | 439 | | | | | | | | | |
| **142** | 4 | 0.46 | -- | -- | -- | 442 | | | | | | | | | |
| **146** | 0 | -2.41 | -- | -- | -- | 380 | | | | | | | | | |
| **180** | 4 | -0.19 | -- | -- | -- | 428 | | | | | | | | | |
| **183** | 3 | 0.60 | -- | -- | 445 | -- | | | | | | | | | |
| **190** | 4 | 0.00 | -- | -- | 432 | -- | | | | | | | | | |
| **193** | 0 | -18.11 | -- | -- | -- | 40.8 | | | | | | | | | |
| **212** | 2 | -1.34 | -- | -- | -- | 403 | | | | | | | | | |
| **224** | 4 | -0.23 | -- | -- | -- | 427 | | | | | | | | | |
| **227** | 4 | 0.00 | 432 | -- | -- | -- | | | | | | | | | |

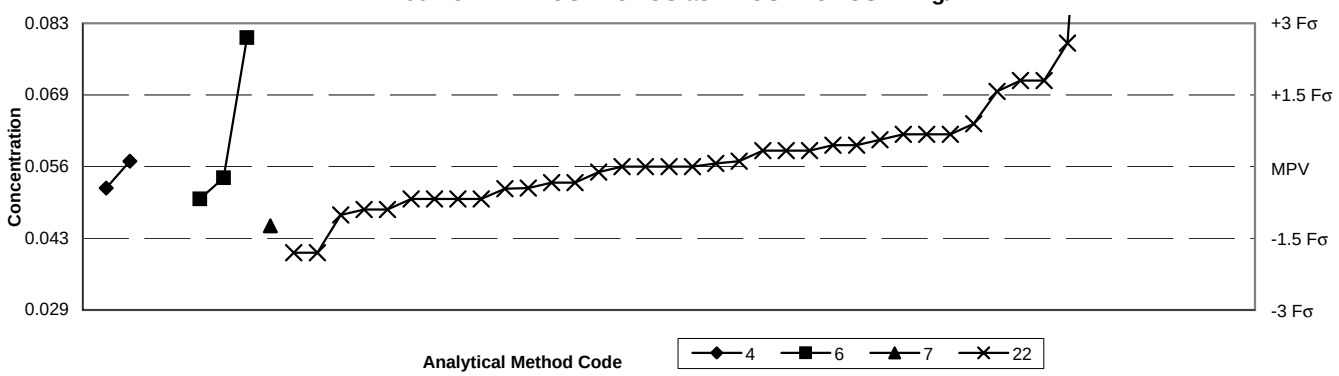
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|
| | 4 | 5 | 6 | Method Codes | | |
| n = | 28 | 1 | 7 | 04 Inductively coupled plasma | **MPV =** | **249 µg/L** |
| Minimum = | 229.7 | 225.3 | 234 | 05 Direct current plasma | F-pseudosigma = | 7.4 |
| Maximum = | 286 | | 258 | 06 Inductively coupled plasma / mass spectrometry | Rating criterion = | 12.5 |
| Median = | 249 | | 252 | | n = | 36 |
| F-pseudosigma = | 6.1 | | 7.3 | | Uh = | 253 |
| | | | | | Lh = | 243 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 5 | 6 |
| **1** | 4 | 0.27 | -- | -- | 252.3 |
| **5** | 4 | -0.40 | 244 | -- | -- |
| **8** | 3 | 0.56 | -- | -- | 256 |
| **16** | 4 | 0.00 | 249 | -- | -- |
| **18** | 3 | -0.80 | 239 | -- | -- |
| **24** | 4 | 0.40 | 254 | -- | -- |
| **25** | 1 | -1.55 | 229.7 | -- | -- |
| **32** | 4 | -0.40 | -- | -- | 244 |
| **33** | 1 | -1.90 | -- | 225.3 | -- |
| **42** | 0 | 2.97 | 286 | -- | -- |
| **59** | 3 | 0.64 | -- | -- | 257 |
| **70** | 4 | 0.00 | 249 | -- | -- |
| **76** | 4 | 0.02 | -- | -- | 249.2 |
| **86** | 3 | -0.56 | 242 | -- | -- |
| **100** | 3 | 0.80 | 259 | -- | -- |
| **102** | 4 | 0.08 | 250 | -- | -- |
| **105** | 4 | 0.08 | 250 | -- | -- |
| **113** | 3 | -0.80 | 239 | -- | -- |
| **134** | 4 | -0.18 | 246.7 | -- | -- |
| **138** | 4 | -0.24 | 246 | -- | -- |
| **142** | 4 | 0.08 | 250 | -- | -- |
| **190** | 4 | 0.24 | 252 | -- | -- |
| **212** | 3 | 0.96 | 261 | -- | -- |
| **219** | 3 | -0.64 | 241 | -- | -- |
| **230** | 3 | 0.72 | -- | -- | 258 |
| **234** | 4 | 0.00 | 249 | -- | -- |
| **247** | 3 | 0.88 | 260 | -- | -- |
| **256** | 4 | 0.08 | 250 | -- | -- |
| **259** | 4 | 0.38 | 253.7 | -- | -- |
| **265** | 3 | -0.56 | 242 | -- | -- |
| **323** | 4 | 0.00 | 249 | -- | -- |
| **326** | 4 | 0.12 | 250.5 | -- | -- |
| **328** | 3 | -0.80 | 239 | -- | -- |
| **333** | 4 | -0.24 | 246 | -- | -- |
| **341** | 2 | -1.20 | -- | -- | 234 |
| **377** | 4 | -0.24 | 246 | -- | -- |

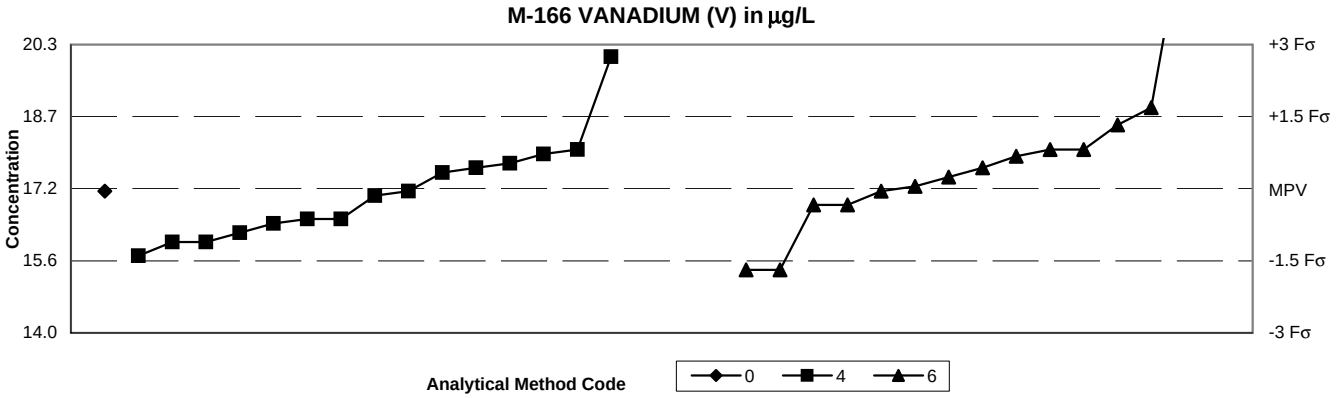
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | | | | | Methods | Statistics | |
|---|---|---|---|---|---|---|---|
| | 4 | 6 | 7 | 22 | Method Codes | | |
| n = | 2 | 3 | 1 | 36 | 04 Inductively coupled plasma | **MPV =** | **0.056 mg/L** |
| Minimum = | 0.052 | 0.05 | 0.045 | 0.04 | 06 Inductively coupled plasma / mass spectrometry | F-pseudosigma = | 0.0089 |
| Maximum = | 0.057 | 0.08 | | 0.15 | 07 Ion chromatography | n = | 42 |
| Median = | | | | 0.056 | 22 Colorimetric | Uh = | 0.062 |
| F-pseudosigma = | | | | 0.0082 | | Lh = | 0.050 |

| | | | Method Codes | | | | | | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 6 | 7 | 22 | | **Lab** | Rating | Z-value | 4 | 6 | 7 | 22 |
| **5** | 4 | -0.34 | -- | -- | -- | 0.053 | | **366** | 3 | -0.90 | -- | -- | -- | 0.048 |
| **8** | NR | -- | <0.5 | -- | -- | -- | | **377** | 4 | 0.00 | -- | -- | -- | 0.056 |
| **12** | 3 | -0.67 | -- | -- | -- | 0.05 | | **379** | 2 | -1.24 | -- | -- | 0.045 | -- |
| **16** | 4 | 0.00 | -- | -- | -- | 0.056 | | **386** | 3 | 0.67 | -- | -- | -- | 0.062 |
| **25** | 3 | -0.67 | -- | -- | -- | 0.05 | | **389** | 4 | 0.45 | -- | -- | -- | 0.06 |
| **30** | 3 | -0.67 | -- | 0.05 | -- | -- | | | | | | | | |
| **32** | 1 | -1.80 | -- | -- | -- | 0.04 | | | | | | | | |
| **33** | 0 | 10.57 | -- | -- | -- | 0.15 | | | | | | | | |
| **38** | 4 | 0.00 | -- | -- | -- | 0.056 | | | | | | | | |
| **42** | 4 | 0.11 | 0.057 | -- | -- | -- | | | | | | | | |
| **45** | 0 | 2.70 | -- | 0.08 | -- | -- | | | | | | | | |
| **46** | 4 | -0.45 | -- | -- | -- | 0.052 | | | | | | | | |
| **64** | 4 | 0.34 | -- | -- | -- | 0.059 | | | | | | | | |
| **70** | 4 | 0.45 | -- | -- | -- | 0.06 | | | | | | | | |
| **76** | 4 | -0.24 | -- | 0.054 | -- | -- | | | | | | | | |
| **89** | 4 | -0.46 | -- | -- | -- | 0.052 | | | | | | | | |
| **102** | 4 | -0.11 | -- | -- | -- | 0.055 | | | | | | | | |
| **105** | 3 | -0.67 | -- | -- | -- | 0.05 | | | | | | | | |
| **113** | 4 | 0.11 | -- | -- | -- | 0.057 | | | | | | | | |
| **134** | 3 | 0.67 | -- | -- | -- | 0.062 | | | | | | | | |
| **138** | 4 | 0.07 | -- | -- | -- | 0.057 | | | | | | | | |
| **142** | 2 | -1.01 | -- | -- | -- | 0.047 | | | | | | | | |
| **146** | NR | -- | -- | -- | -- | <0.10 | | | | | | | | |
| **180** | 4 | 0.34 | -- | -- | -- | 0.059 | | | | | | | | |
| **183** | 4 | 0.00 | -- | -- | -- | 0.056 | | | | | | | | |
| **190** | 3 | -0.90 | -- | -- | -- | 0.048 | | | | | | | | |
| **193** | 3 | 0.67 | -- | -- | -- | 0.062 | | | | | | | | |
| **212** | 0 | 2.59 | -- | -- | -- | 0.079 | | | | | | | | |
| **219** | NR | -- | <0.1 | -- | -- | -- | | | | | | | | |
| **227** | 4 | -0.45 | 0.052 | -- | -- | -- | | | | | | | | |
| **234** | 1 | 1.57 | -- | -- | -- | 0.07 | | | | | | | | |
| **247** | 3 | -0.67 | -- | -- | -- | 0.05 | | | | | | | | |
| **259** | 4 | 0.34 | -- | -- | -- | 0.059 | | | | | | | | |
| **273** | 0 | 9.44 | -- | -- | -- | 0.14 | | | | | | | | |
| **274** | 1 | 1.80 | -- | -- | -- | 0.072 | | | | | | | | |
| **307** | 1 | 1.80 | -- | -- | -- | 0.072 | | | | | | | | |
| **321** | 3 | 0.56 | -- | -- | -- | 0.061 | | | | | | | | |
| **323** | 3 | 0.90 | -- | -- | -- | 0.064 | | | | | | | | |
| **328** | 1 | -1.80 | -- | -- | -- | 0.04 | | | | | | | | |
| **341** | 4 | -0.34 | -- | -- | -- | 0.053 | | | | | | | | |

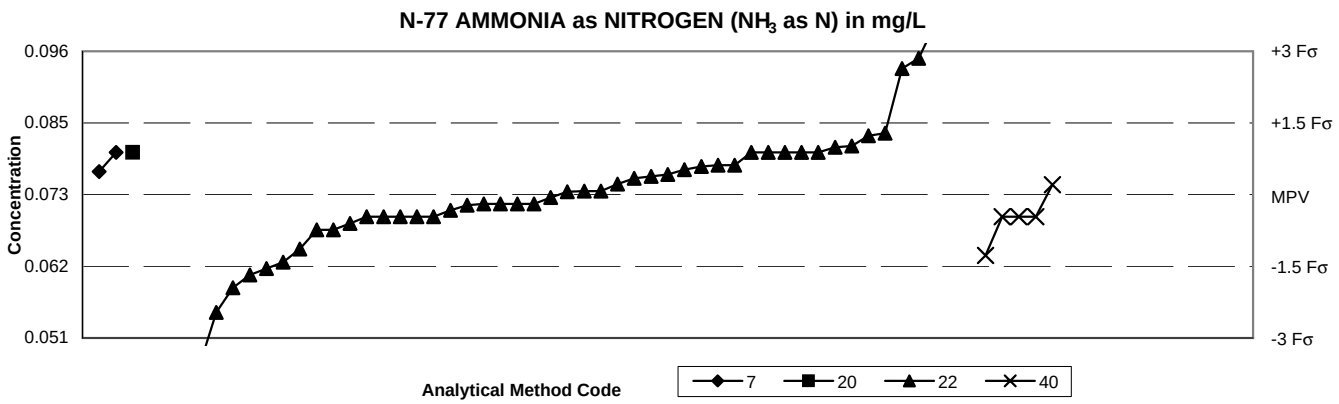
**Table 12.** ***Statistical summary of reported data for standard reference sample M-166 (major constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 0 | 4 | 6 | Method Codes | | |
| n = | 1 | 15 | 14 | 00 Other | **MPV =** | **17.2 µg/L** |
| Minimum = | 17.1 | 15.7 | 15.4 | 04 Inductively coupled plasma | F-pseudosigma = | 1.04 |
| Maximum = | | 20 | 23 | 06 Inductively coupled plasma / mass spectrometry | n = | 30 |
| Median = | | 17.0 | 17.5 | | Uh = | 17.9 |
| F-pseudosigma = | | 1.00 | 0.89 | | Lh = | 16.5 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 4 | 6 |
| **1** | 2 | 1.33 | -- | -- | 18.53 |
| **5** | 3 | -0.63 | -- | 16.5 | -- |
| **8** | 0 | 5.64 | -- | -- | 23 |
| **16** | 3 | -0.72 | -- | 16.4 | -- |
| **18** | 4 | -0.14 | -- | 17 | -- |
| **24** | NR | -- | -- | <18 | -- |
| **25** | NR | -- | -- | < 19 | -- |
| **32** | 4 | 0.43 | -- | -- | 17.6 |
| **42** | 4 | 0.43 | -- | 17.6 | -- |
| **45** | 4 | -0.05 | -- | -- | 17.1 |
| **59** | 1 | 1.69 | -- | -- | 18.9 |
| **70** | 1 | -1.69 | -- | -- | 15.4 |
| **76** | 3 | 0.67 | -- | -- | 17.85 |
| **86** | 4 | -0.05 | 17.1 | -- | -- |
| **100** | 3 | 0.72 | -- | 17.9 | -- |
| **105** | NR | -- | -- | <20 | -- |
| **134** | 3 | -0.63 | -- | 16.5 | -- |
| **138** | 2 | -1.11 | -- | 16 | -- |
| **142** | 4 | 0.05 | -- | -- | 17.2 |
| **146** | 3 | 0.53 | -- | 17.7 | -- |
| **149** | 4 | 0.24 | -- | -- | 17.4 |
| **212** | 4 | 0.34 | -- | 17.5 | -- |
| **219** | 1 | -1.69 | -- | -- | 15.4 |
| **220** | 3 | -0.92 | -- | 16.2 | -- |
| **230** | 3 | 0.82 | -- | -- | 18 |
| **234** | 3 | 0.82 | -- | 18 | -- |
| **247** | 0 | 2.75 | -- | 20 | -- |
| **256** | 2 | -1.40 | -- | 15.7 | -- |
| **265** | 4 | -0.34 | -- | -- | 16.8 |
| **323** | 3 | 0.82 | -- | -- | 18 |
| **328** | 2 | -1.11 | -- | 16 | -- |
| **341** | 4 | -0.34 | -- | -- | 16.8 |
| **377** | 4 | -0.05 | -- | 17.1 | -- |

**Table 13.** ***Statistical summary of reported data for standard reference sample N-77 (nutrient constituents)***



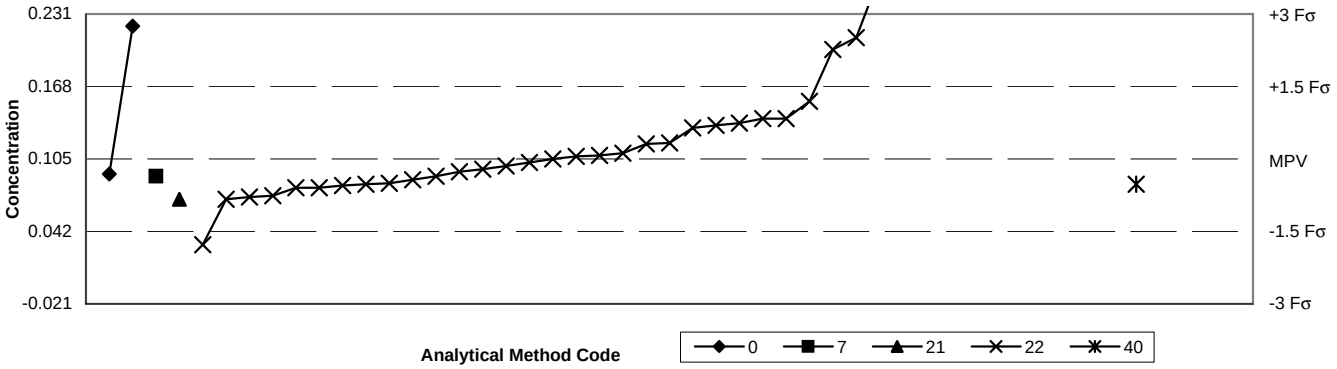

| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 7 | 20 | 22 | 40 | Method Codes | | |
| n = | 2 | 1 | 50 | 5 | 07 Ion chromatography | **MPV =** | **0.073 mg/L** |
| Minimum = | 0.077 | 0.08 | 0.021 | 0.064 | 20 Titration: colorimetric | F-pseudosigma = | 0.0074 |
| Maximum = | 0.08 | | 0.139 | 0.075 | 22 Colorimetric | n = | 58 |
| Median = | | | 0.073 | 0.070 | 40 Ion selective electrode | Uh = | 0.080 |
| F-pseudosigma = | | | 0.0082 | | | Lh = | 0.070 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 20 | 22 | 40 |
| **1** | 4 | -0.20 | -- | -- | 0.072 | -- |
| **5** | 0 | 4.93 | -- | -- | 0.11 | -- |
| **10** | 4 | -0.47 | -- | -- | -- | 0.07 |
| **16** | 3 | 0.88 | -- | -- | 0.08 | -- |
| **21** | 4 | -0.22 | -- | -- | 0.0718 | -- |
| **23** | 4 | -0.47 | -- | -- | 0.07 | -- |
| **31** | 4 | -0.20 | -- | -- | 0.072 | -- |
| **33** | 2 | 1.29 | -- | -- | 0.083 | -- |
| **38** | 3 | 0.61 | -- | -- | 0.078 | -- |
| **46** | 4 | -0.47 | -- | -- | 0.07 | -- |
| **50** | 3 | -0.60 | -- | -- | 0.069 | -- |
| **51** | 4 | -0.47 | -- | -- | -- | 0.07 |
| **59** | 2 | 1.02 | -- | -- | 0.081 | -- |
| **64** | 3 | 0.88 | -- | -- | 0.08 | -- |
| **70** | 4 | -0.20 | -- | -- | 0.072 | -- |
| **72** | 1 | -1.68 | -- | -- | 0.061 | -- |
| **76** | 4 | -0.33 | -- | -- | 0.071 | -- |
| **80** | 4 | -0.47 | -- | -- | -- | 0.07 |
| **86** | 2 | 1.23 | -- | -- | 0.0826 | -- |
| **89** | 0 | -2.46 | -- | -- | 0.0552 | -- |
| **90** | 0 | -7.08 | -- | -- | 0.021 | -- |
| **91** | 0 | -3.57 | -- | -- | 0.047 | -- |
| **102** | 3 | 0.88 | -- | -- | 0.08 | -- |
| **105** | 0 | -4.51 | -- | -- | 0.04 | -- |
| **110** | 3 | 0.88 | -- | 0.08 | -- | -- |
| **113** | 1 | -1.54 | -- | -- | 0.062 | -- |
| **118** | 4 | 0.34 | -- | -- | 0.076 | -- |
| **134** | 3 | -0.74 | -- | -- | 0.068 | -- |
| **138** | 4 | 0.07 | -- | -- | 0.074 | -- |
| **142** | 4 | 0.38 | -- | -- | 0.0763 | -- |
| **146** | 0 | 2.85 | -- | -- | 0.0946 | -- |
| **180** | 3 | 0.61 | -- | -- | 0.078 | -- |
| **190** | 4 | 0.07 | -- | -- | 0.074 | -- |
| **193** | 4 | -0.47 | -- | -- | 0.07 | -- |
| **198** | 3 | 0.59 | -- | -- | 0.0778 | -- |
| **234** | 4 | 0.21 | -- | -- | -- | 0.075 |
| **247** | 4 | -0.06 | -- | -- | 0.073 | -- |
| **313** | 4 | 0.22 | -- | -- | 0.0751 | -- |
| **316** | 4 | 0.42 | -- | -- | 0.0766 | -- |
| **318** | 1 | -1.95 | -- | -- | 0.059 | -- |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 20 | 22 | 40 |
| **320** | 4 | 0.06 | -- | -- | 0.074 | -- |
| **321** | 3 | 0.88 | -- | -- | 0.08 | -- |
| **323** | 0 | 3.58 | -- | -- | 0.1 | -- |
| **327** | 3 | 0.88 | -- | -- | 0.08 | -- |
| **328** | 0 | -4.24 | -- | -- | 0.042 | -- |
| **333** | 4 | 0.48 | 0.077 | -- | -- | -- |
| **341** | 3 | -0.74 | -- | -- | 0.068 | -- |
| **366** | 0 | 8.84 | -- | -- | 0.139 | -- |
| **369** | 2 | -1.41 | -- | -- | 0.063 | -- |
| **373** | 0 | 2.64 | -- | -- | 0.093 | -- |
| **377** | 2 | -1.14 | -- | -- | 0.065 | -- |
| **378** | 3 | 0.52 | -- | -- | 0.077 | -- |
| **379** | 3 | 0.88 | 0.08 | -- | -- | -- |
| **380** | 3 | 0.99 | -- | -- | 0.081 | -- |
| **381** | 4 | -0.20 | -- | -- | 0.072 | -- |
| **383** | 4 | -0.47 | -- | -- | 0.07 | -- |
| **386** | 2 | -1.27 | -- | -- | -- | 0.064 |
| **389** | 4 | -0.47 | -- | -- | 0.07 | -- |

**Table 13.** ***Statistical summary of reported data for standard reference sample N-77 (nutrient constituents) -- continued***

**N-77 AMMONIA + ORGANIC NITROGEN as NITROGEN ($NH_3$ + Organic N as N) in mg/L**

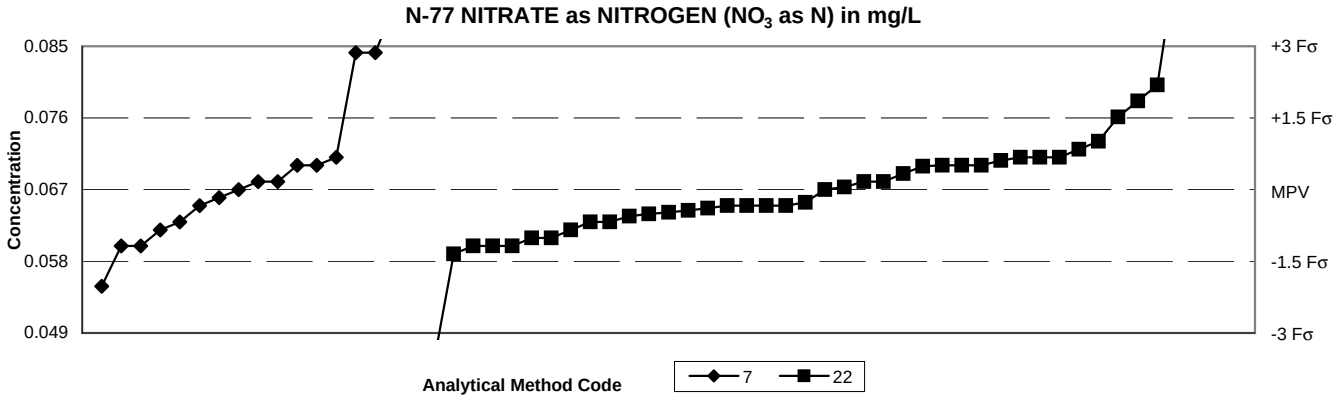



| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 7 | 21 | 22 | 40 | Method Codes | | |
| n = | 2 | 1 | 1 | 34 | 1 | 00 Other | **MPV =** | **0.105 mg/L** |
| Minimum = | 0.092 | 0.09 | 0.07 | 0.031 | 0.083 | 07 Ion chromatography | F-pseudosigma = | 0.0419 |
| Maximum = | 0.22 | | | 0.57 | | 21 Titration: electrometric | n = | 39 |
| Median = | | | | 0.108 | | 22 Colorimetric | Uh = | 0.140 |
| F-pseudosigma = | | | | 0.0415 | | 40 Ion selective electrode | Lh = | 0.084 |

| Lab | Rating | Z-value | Method Codes 0 | 7 | 21 | 22 | 40 |
|---|---|---|---|---|---|---|---|
| **1** | 4 | -0.21 | -- | -- | -- | 0.096 | -- |
| **5** | 0 | 2.75 | 0.22 | -- | -- | -- | -- |
| **8** | 3 | -0.84 | -- | -- | 0.07 | -- | -- |
| **10** | 3 | -0.60 | -- | -- | -- | 0.08 | -- |
| **16** | 3 | -0.79 | -- | -- | -- | 0.072 | -- |
| **21** | 4 | 0.07 | -- | -- | -- | 0.108 | -- |
| **23** | 3 | 0.74 | -- | -- | -- | 0.136 | -- |
| **31** | 4 | 0.00 | -- | -- | -- | 0.105 | -- |
| **38** | 4 | -0.36 | -- | -- | -- | 0.09 | -- |
| **46** | NR | -- | -- | -- | -- | <0.4 | -- |
| **51** | 3 | -0.53 | -- | -- | -- | -- | 0.083 |
| **59** | 4 | 0.12 | -- | -- | -- | 0.11 | -- |
| **70** | 4 | -0.26 | -- | -- | -- | 0.094 | -- |
| **72** | 0 | 6.66 | -- | -- | -- | 0.384 | -- |
| **89** | 3 | 0.64 | -- | -- | -- | 0.132 | -- |
| **90** | 4 | -0.50 | -- | -- | -- | 0.084 | -- |
| **91** | NR | -- | -- | -- | -- | <0.10 | -- |
| **102** | 0 | 5.85 | -- | -- | -- | 0.35 | -- |
| **105** | NR | -- | -- | -- | -- | <1.00 | -- |
| **113** | 3 | -0.84 | -- | -- | -- | 0.07 | -- |
| **118** | 3 | -0.55 | -- | -- | -- | 0.082 | -- |
| **134** | NR | -- | -- | -- | -- | < 0.2 | -- |
| **138** | 4 | -0.43 | -- | -- | -- | 0.087 | -- |
| **142** | 3 | 0.84 | -- | -- | -- | 0.14 | -- |
| **146** | 2 | 1.19 | -- | -- | -- | 0.155 | -- |
| **180** | 4 | -0.14 | -- | -- | -- | 0.099 | -- |
| **190** | 4 | 0.33 | -- | -- | -- | 0.119 | -- |
| **193** | 0 | 11.10 | -- | -- | -- | 0.57 | -- |
| **247** | 0 | 2.51 | -- | -- | -- | 0.21 | -- |
| **313** | 3 | 0.69 | -- | -- | -- | 0.134 | -- |
| **316** | 3 | -0.53 | -- | -- | -- | 0.083 | -- |
| **318** | 4 | -0.31 | 0.092 | -- | -- | -- | -- |
| **320** | 4 | 0.05 | -- | -- | -- | 0.107 | -- |
| **323** | 0 | 2.27 | -- | -- | -- | 0.2 | -- |
| **327** | NR | -- | -- | -- | -- | <0.20 | -- |
| **328** | 0 | 3.77 | -- | -- | -- | 0.263 | -- |
| **341** | 3 | -0.60 | -- | -- | -- | 0.08 | -- |
| **366** | 0 | 5.68 | -- | -- | -- | 0.343 | -- |
| **369** | 3 | -0.76 | -- | -- | -- | 0.073 | -- |
| **373** | NR | -- | -- | -- | -- | <0.28 | -- |

| Lab | Rating | Z-value | Method Codes 0 | 7 | 21 | 22 | 40 |
|---|---|---|---|---|---|---|---|
| **377** | 3 | 0.84 | -- | -- | -- | 0.14 | -- |
| **378** | 4 | 0.31 | -- | -- | -- | 0.118 | -- |
| **379** | 4 | -0.36 | -- | 0.09 | -- | -- | -- |
| **380** | 1 | -1.77 | -- | -- | -- | 0.031 | -- |
| **386** | 4 | -0.07 | -- | -- | -- | 0.102 | -- |

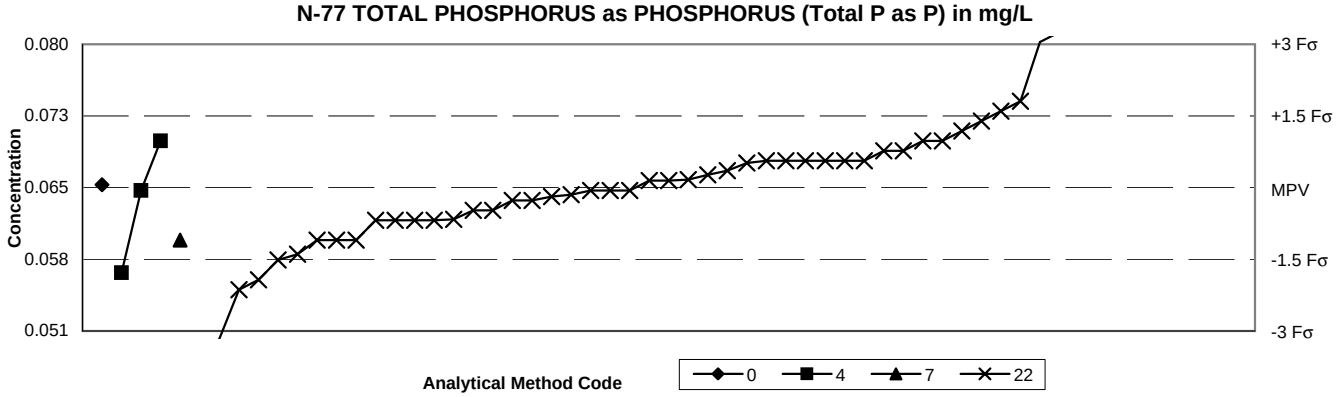
**Table 13.** ***Statistical summary of reported data for standard reference sample N-77 (nutrient constituents) -- continued***




| SUMMARY | Methods | | | Statistics | |
|---|---|---|---|---|---|
| | 7 | 22 | Method Codes | | |
| n = | 17 | 40 | 07 Ion chromatography | **MPV =** | **0.067 mg/L** |
| Minimum = | 0.055 | 0.046 | 22 Colorimetric | F-pseudosigma = | 0.0059 |
| Maximum = | 0.092 | 0.65 | | n = | 57 |
| Median = | 0.068 | 0.066 | | Uh = | 0.071 |
| F-pseudosigma = | 0.0059 | 0.0055 | | Lh = | 0.063 |

| Lab | Rating | Z-value | Method Codes 7 | 22 |
|---|---|---|---|---|
| **1** | 3 | -0.67 | -- | 0.063 |
| **5** | 2 | -1.01 | -- | 0.061 |
| **8** | 0 | -2.02 | 0.055 | -- |
| **10** | 3 | 0.67 | -- | 0.071 |
| **16** | 2 | 1.01 | -- | 0.073 |
| **21** | 4 | -0.39 | -- | 0.065 |
| **23** | NR | -- | -- | <0.10 |
| **31** | 4 | 0.34 | -- | 0.069 |
| **33** | 0 | 2.87 | 0.084 | -- |
| **38** | 4 | -0.34 | -- | 0.065 |
| **42** | 3 | -0.67 | 0.063 | -- |
| **45** | 0 | 4.22 | 0.092 | -- |
| **46** | 3 | 0.67 | 0.071 | -- |
| **51** | 2 | -1.18 | 0.06 | -- |
| **59** | 4 | 0.17 | -- | 0.068 |
| **64** | 4 | 0.51 | -- | 0.07 |
| **70** | 4 | -0.34 | -- | 0.065 |
| **72** | 2 | -1.18 | -- | 0.06 |
| **80** | 0 | 98.31 | -- | 0.65 |
| **86** | 0 | -3.57 | -- | 0.046 |
| **89** | 3 | -0.67 | -- | 0.063 |
| **90** | 4 | 0.51 | -- | 0.07 |
| **91** | 3 | 0.84 | -- | 0.072 |
| **102** | 0 | 2.87 | 0.084 | -- |
| **105** | 4 | 0.51 | 0.07 | -- |
| **110** | 4 | 0.17 | 0.068 | -- |
| **113** | 4 | 0.00 | -- | 0.067 |
| **118** | 3 | 0.67 | -- | 0.071 |
| **134** | 3 | -0.84 | -- | 0.062 |
| **138** | 4 | -0.17 | 0.066 | -- |
| **142** | 3 | 0.61 | -- | 0.071 |
| **146** | 0 | 4.86 | -- | 0.096 |
| **180** | 3 | -0.84 | 0.062 | -- |
| **190** | 4 | -0.51 | -- | 0.064 |
| **193** | 4 | 0.51 | -- | 0.07 |
| **198** | 4 | -0.27 | -- | 0.065 |
| **234** | 4 | 0.17 | 0.068 | -- |
| **247** | 0 | 3.88 | 0.09 | -- |
| **313** | 4 | 0.49 | -- | 0.07 |
| **316** | 4 | -0.44 | -- | 0.064 |
| **318** | 4 | 0.17 | -- | 0.068 |
| **320** | 3 | -0.56 | -- | 0.064 |
| **321** | 2 | -1.18 | 0.06 | -- |
| **323** | 4 | 0.05 | -- | 0.067 |
| **328** | 2 | -1.18 | -- | 0.06 |
| **333** | 4 | 0.00 | 0.067 | -- |
| **341** | 4 | -0.34 | -- | 0.065 |
| **366** | 1 | 1.52 | -- | 0.076 |
| **369** | 2 | -1.01 | -- | 0.061 |
| **373** | 1 | 1.85 | -- | 0.078 |
| **377** | 3 | 0.67 | -- | 0.071 |
| **378** | 4 | -0.47 | -- | 0.064 |
| **379** | 4 | -0.34 | 0.065 | -- |
| **380** | 2 | -1.18 | -- | 0.06 |
| **381** | 4 | -0.34 | -- | 0.065 |
| **383** | 4 | 0.51 | 0.07 | -- |
| **386** | 2 | -1.35 | -- | 0.059 |
| **389** | 0 | 2.19 | -- | 0.08 |

**Table 13.** ***Statistical summary of reported data for standard reference sample N-77 (nutrient constituents) -- continued***

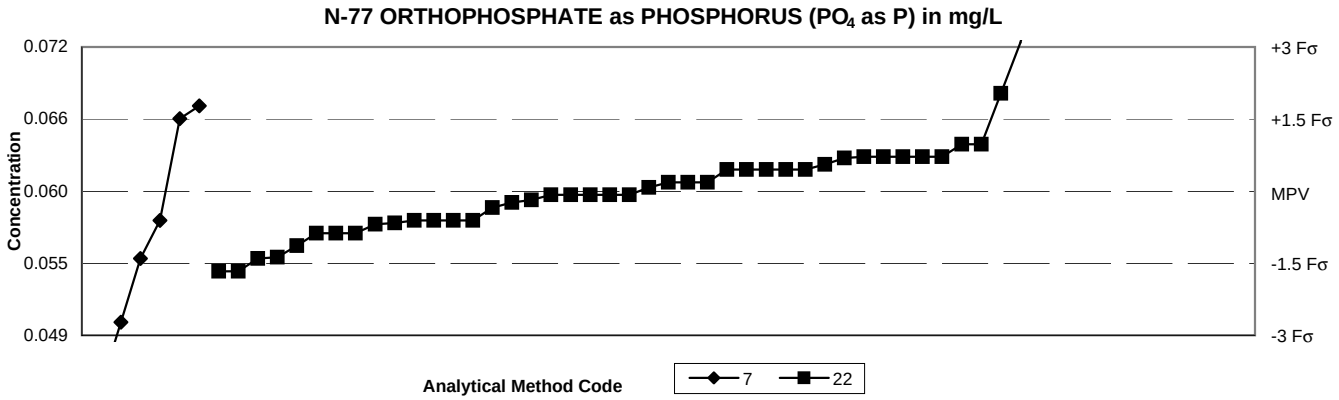



| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 0 | 4 | 7 | 22 | Method Codes | | |
| n = | 1 | 3 | 1 | 47 | 00 Other | **MPV =** | **0.065 mg/L** |
| Minimum = | 0.066 | 0.057 | 0.06 | 0.04 | 04 Inductively coupled plasma | F-pseudosigma = | 0.0048 |
| Maximum = | | 0.07 | | 0.085 | 07 Ion chromatography | n = | 52 |
| Median = | | | | 0.066 | 22 Colorimetric | Uh = | 0.069 |
| F-pseudosigma = | | | | 0.0048 | | Lh = | 0.062 |

| Lab | Rating | Z-value | Method Codes 0 | 4 | 7 | 22 |
|---|---|---|---|---|---|---|
| **1** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **5** | 1 | 1.81 | -- | -- | -- | 0.074 |
| **8** | 3 | 0.98 | -- | 0.07 | -- | -- |
| **10** | 4 | 0.15 | -- | -- | -- | 0.066 |
| **16** | 3 | 0.98 | -- | -- | -- | 0.07 |
| **21** | 4 | -0.15 | -- | -- | -- | 0.065 |
| **23** | 3 | -0.68 | -- | -- | -- | 0.062 |
| **31** | 4 | -0.06 | -- | -- | -- | 0.065 |
| **33** | 0 | 4.09 | -- | -- | -- | 0.085 |
| **38** | 4 | -0.27 | -- | -- | -- | 0.064 |
| **42** | 1 | -1.78 | -- | 0.057 | -- | -- |
| **45** | 3 | -0.68 | -- | -- | -- | 0.062 |
| **46** | 3 | -0.68 | -- | -- | -- | 0.062 |
| **51** | 4 | -0.27 | -- | -- | -- | 0.064 |
| **59** | 3 | -0.68 | -- | -- | -- | 0.062 |
| **64** | 4 | -0.06 | -- | -- | -- | 0.065 |
| **70** | 0 | 3.67 | -- | -- | -- | 0.083 |
| **72** | 0 | 3.26 | -- | -- | -- | 0.081 |
| **86** | 4 | -0.06 | -- | 0.065 | -- | -- |
| **89** | 3 | -0.66 | -- | -- | -- | 0.062 |
| **91** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **102** | 4 | 0.35 | -- | -- | -- | 0.067 |
| **105** | 1 | -1.52 | -- | -- | -- | 0.058 |
| **113** | 3 | 0.77 | -- | -- | -- | 0.069 |
| **118** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **134** | 1 | 1.60 | -- | -- | -- | 0.073 |
| **138** | 4 | -0.48 | -- | -- | -- | 0.063 |
| **142** | 3 | 0.77 | -- | -- | -- | 0.069 |
| **146** | NR | -- | -- | -- | -- | <0.10 |
| **180** | 2 | 1.39 | -- | -- | -- | 0.072 |
| **190** | 2 | -1.10 | -- | -- | -- | 0.06 |
| **193** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **198** | 3 | 0.52 | -- | -- | -- | 0.068 |
| **234** | 2 | -1.10 | -- | -- | -- | 0.06 |
| **247** | 0 | -5.25 | -- | -- | -- | 0.04 |
| **313** | 4 | -0.19 | -- | -- | -- | 0.064 |
| **316** | 4 | 0.27 | -- | -- | -- | 0.067 |
| **318** | 4 | 0.06 | 0.066 | -- | -- | -- |
| **320** | 4 | 0.17 | -- | -- | -- | 0.066 |
| **321** | 2 | 1.18 | -- | -- | -- | 0.071 |

| Lab | Rating | Z-value | Method Codes 0 | 4 | 7 | 22 |
|---|---|---|---|---|---|---|
| **323** | 0 | 3.05 | -- | -- | -- | 0.08 |
| **327** | 3 | 0.98 | -- | -- | -- | 0.07 |
| **328** | 0 | -3.18 | -- | -- | -- | 0.05 |
| **341** | 1 | -1.93 | -- | -- | -- | 0.056 |
| **366** | 0 | -2.14 | -- | -- | -- | 0.055 |
| **369** | 4 | -0.48 | -- | -- | -- | 0.063 |
| **373** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **377** | 3 | 0.56 | -- | -- | -- | 0.068 |
| **378** | 4 | 0.15 | -- | -- | -- | 0.066 |
| **379** | 2 | -1.10 | -- | -- | 0.06 | -- |
| **380** | 2 | -1.39 | -- | -- | -- | 0.059 |
| **386** | 4 | -0.06 | -- | -- | -- | 0.065 |
| **389** | 2 | -1.10 | -- | -- | -- | 0.06 |

**Table 13.** ***Statistical summary of reported data for standard reference sample N-77 (nutrient constituents) -- continued***

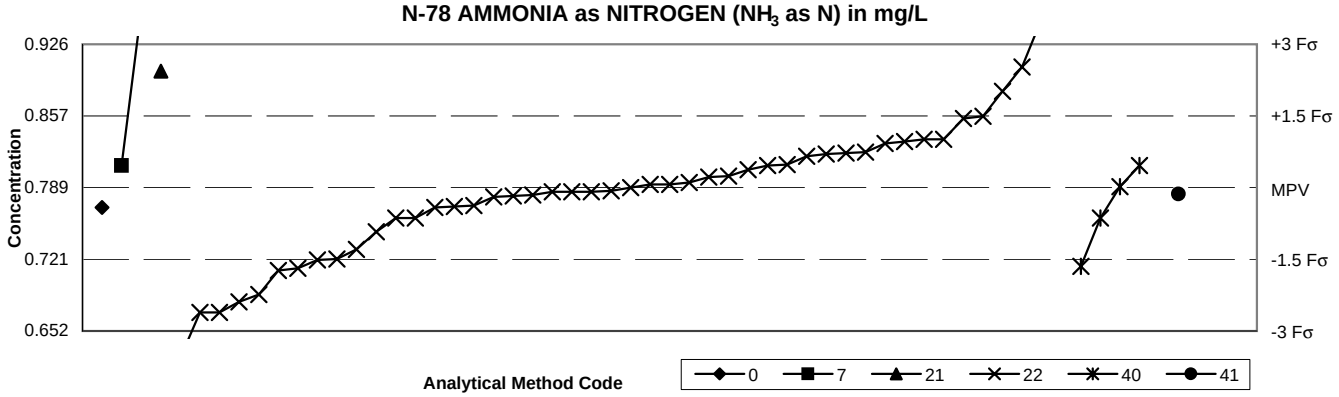



| SUMMARY | Methods | | | Statistics | |
|---|---|---|---|---|---|
| | 7 | 22 | Method Codes | | |
| n = | 6 | 46 | 07 Ion chromatography | **MPV =** | **0.060 mg/L** |
| Minimum = | 0.045 | 0.054 | 22 Colorimetric | F-pseudosigma = | 0.0038 |
| Maximum = | 0.067 | 0.66 | | n = | 52 |
| Median = | 0.057 | 0.061 | | Uh = | 0.063 |
| F-pseudosigma = | 0.0119 | 0.0037 | | Lh = | 0.058 |

| Lab | Rating | Z-value | Method Codes 7 | 22 |
|---|---|---|---|---|
| **1** | 4 | 0.19 | -- | 0.061 |
| **5** | 3 | 0.71 | -- | 0.063 |
| **8** | 2 | -1.40 | 0.055 | -- |
| **10** | 3 | 0.71 | -- | 0.063 |
| **16** | 3 | -0.61 | -- | 0.058 |
| **21** | 4 | -0.24 | -- | 0.059 |
| **23** | 3 | -0.61 | -- | 0.058 |
| **31** | 4 | -0.08 | -- | 0.06 |
| **33** | 0 | 4.68 | -- | 0.078 |
| **38** | 3 | -0.87 | -- | 0.057 |
| **42** | 3 | -0.61 | 0.058 | -- |
| **45** | 1 | 1.77 | 0.067 | -- |
| **46** | 4 | -0.34 | -- | 0.059 |
| **50** | 3 | -0.61 | -- | 0.058 |
| **51** | 4 | 0.45 | -- | 0.062 |
| **59** | 3 | 0.71 | -- | 0.063 |
| **64** | 4 | 0.45 | -- | 0.062 |
| **70** | 4 | 0.45 | -- | 0.062 |
| **72** | 0 | 2.04 | -- | 0.068 |
| **80** | 0 | 158.63 | -- | 0.66 |
| **89** | 3 | -0.69 | -- | 0.058 |
| **102** | 3 | 0.98 | -- | 0.064 |
| **105** | 2 | -1.40 | -- | 0.055 |
| **113** | 3 | 0.98 | -- | 0.064 |
| **118** | 4 | -0.08 | -- | 0.06 |
| **134** | 4 | -0.08 | -- | 0.06 |
| **138** | 3 | -0.61 | -- | 0.058 |
| **142** | 4 | 0.19 | -- | 0.061 |
| **146** | 3 | 0.71 | -- | 0.063 |
| **180** | 3 | -0.87 | -- | 0.057 |
| **190** | 1 | -1.67 | -- | 0.054 |
| **198** | 2 | -1.38 | -- | 0.055 |
| **234** | 2 | 1.51 | 0.066 | -- |
| **247** | 0 | -2.72 | 0.05 | -- |
| **313** | 3 | -0.66 | -- | 0.058 |
| **316** | 4 | -0.19 | -- | 0.06 |
| **318** | 3 | 0.69 | -- | 0.063 |
| **320** | 3 | 0.56 | -- | 0.062 |
| **321** | 3 | 0.71 | -- | 0.063 |
| **323** | 0 | 3.09 | -- | 0.072 |

| Lab | Rating | Z-value | Method Codes 7 | 22 |
|---|---|---|---|---|
| **328** | 0 | 23.73 | -- | 0.15 |
| **341** | 1 | -1.67 | -- | 0.054 |
| **366** | 4 | -0.08 | -- | 0.06 |
| **369** | 3 | -0.87 | -- | 0.057 |
| **373** | 4 | 0.19 | -- | 0.061 |
| **377** | 2 | -1.14 | -- | 0.056 |
| **378** | 4 | 0.08 | -- | 0.061 |
| **379** | 0 | -4.05 | 0.045 | -- |
| **380** | 0 | 51.24 | -- | 0.254 |
| **381** | 4 | 0.45 | -- | 0.062 |
| **386** | 4 | 0.45 | -- | 0.062 |
| **389** | 4 | -0.08 | -- | 0.06 |

**Table 14.** ***Statistical summary of reported data for standard reference sample N-78 (nutrient constituents)***

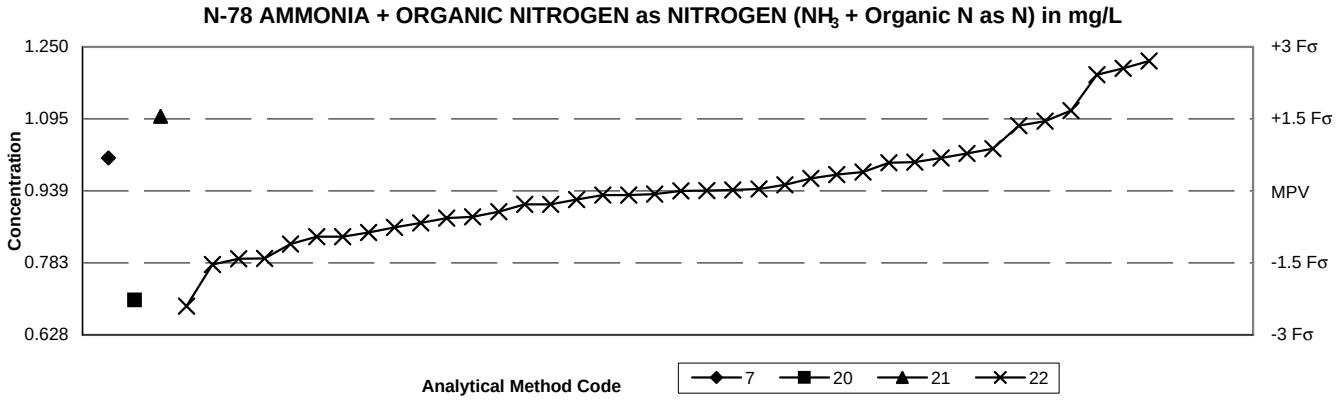



| SUMMARY | Methods | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|
| | 0 | 7 | 21 | 22 | 40 | 41 | Method Codes | |
| n = | 1 | 2 | 1 | 46 | 4 | 1 | 00 Other | **MPV = 0.789 mg/L** |
| Minimum = | 0.77 | 0.81 | 0.9 | 0.627 | 0.714 | 0.783 | 07 Ion chromatography | F-pseudosigma = 0.0456 |
| Maximum = | | 0.96 | | 0.952 | 0.81 | | 21 Titration: electrometric | n = 55 |
| Median = | | | | 0.788 | | | 22 Colorimetric | Uh = 0.822 |
| F-pseudosigma = | | | | 0.0460 | | | 40 Ion selective electrode | Lh = 0.760 |
| | | | | | | | 41 Electrometric | |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 21 | 22 | 40 | 41 |
| **1** | 4 | -0.39 | -- | -- | -- | 0.771 | -- | -- |
| **5** | 3 | 1.01 | -- | -- | -- | 0.835 | -- | -- |
| **8** | 0 | 2.43 | -- | -- | 0.9 | -- | -- | -- |
| **10** | 4 | 0.46 | -- | -- | -- | -- | 0.81 | -- |
| **16** | 4 | -0.42 | -- | -- | -- | 0.77 | -- | -- |
| **18** | 1 | -1.73 | -- | -- | -- | 0.71 | -- | -- |
| **23** | 0 | -2.39 | -- | -- | -- | 0.68 | -- | -- |
| **26** | 0 | 3.75 | -- | 0.96 | -- | -- | -- | -- |
| **33** | 0 | 2.02 | -- | -- | -- | 0.881 | -- | -- |
| **38** | 3 | 0.97 | -- | -- | -- | 0.833 | -- | -- |
| **46** | 4 | 0.07 | -- | -- | -- | 0.792 | -- | -- |
| **50** | 4 | -0.15 | -- | -- | -- | 0.782 | -- | -- |
| **59** | 4 | 0.11 | -- | -- | -- | 0.794 | -- | -- |
| **64** | 4 | 0.24 | -- | -- | -- | 0.8 | -- | -- |
| **70** | 0 | -2.61 | -- | -- | -- | 0.67 | -- | -- |
| **72** | 3 | 0.92 | -- | -- | -- | 0.831 | -- | -- |
| **76** | 4 | 0.00 | -- | -- | -- | 0.789 | -- | -- |
| **80** | 3 | -0.64 | -- | -- | -- | -- | 0.76 | -- |
| **86** | 4 | 0.07 | -- | -- | -- | 0.792 | -- | -- |
| **89** | 0 | -3.55 | -- | -- | -- | 0.627 | -- | -- |
| **90** | 2 | -1.49 | -- | -- | -- | 0.721 | -- | -- |
| **91** | 0 | -2.24 | -- | -- | -- | 0.687 | -- | -- |
| **102** | 1 | -1.51 | -- | -- | -- | 0.72 | -- | -- |
| **105** | 2 | -1.29 | -- | -- | -- | 0.73 | -- | -- |
| **113** | 4 | 0.37 | -- | -- | -- | 0.806 | -- | -- |
| **118** | 4 | 0.22 | -- | -- | -- | 0.799 | -- | -- |
| **134** | 4 | -0.09 | -- | -- | -- | 0.785 | -- | -- |
| **138** | 4 | 0.48 | -- | -- | -- | 0.811 | -- | -- |
| **142** | 1 | -1.69 | -- | -- | -- | 0.712 | -- | -- |
| **146** | 3 | 0.70 | -- | -- | -- | 0.821 | -- | -- |
| **180** | 3 | 0.72 | -- | -- | -- | 0.822 | -- | -- |
| **183** | NR | -- | -- | -- | -- | -- | <1 | -- |
| **190** | 4 | -0.09 | -- | -- | -- | 0.785 | -- | -- |
| **193** | 4 | -0.20 | -- | -- | -- | 0.78 | -- | -- |
| **198** | 2 | 1.49 | -- | -- | -- | 0.857 | -- | -- |
| **205** | 0 | 3.58 | -- | -- | -- | 0.952 | -- | -- |
| **212** | 0 | -2.61 | -- | -- | -- | 0.67 | -- | -- |
| **220** | 3 | -0.92 | -- | -- | -- | 0.747 | -- | -- |
| **227** | 3 | -0.64 | -- | -- | -- | 0.76 | -- | -- |
| **234** | 4 | 0.02 | -- | -- | -- | -- | 0.79 | -- |

| | | | Method Codes | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 21 | 22 | 40 | 41 |
| **247** | 4 | -0.09 | -- | -- | -- | 0.785 | -- | -- |
| **307** | 4 | -0.13 | -- | -- | -- | -- | -- | 0.783 |
| **313** | 4 | -0.37 | -- | -- | -- | 0.772 | -- | -- |
| **320** | 3 | 1.01 | -- | -- | -- | 0.835 | -- | -- |
| **323** | 0 | 3.53 | -- | -- | -- | 0.95 | -- | -- |
| **327** | 3 | -0.64 | -- | -- | -- | 0.76 | -- | -- |
| **328** | 4 | 0.46 | -- | -- | -- | 0.81 | -- | -- |
| **341** | 4 | -0.07 | -- | -- | -- | 0.786 | -- | -- |
| **356** | 4 | -0.18 | -- | -- | -- | 0.781 | -- | -- |
| **366** | 3 | 0.75 | -- | -- | -- | 0.823 | -- | -- |
| **373** | 3 | 0.66 | -- | -- | -- | 0.819 | -- | -- |
| **378** | 0 | 2.52 | -- | -- | -- | 0.904 | -- | -- |
| **379** | 4 | 0.46 | -- | 0.81 | -- | -- | -- | -- |
| **380** | 2 | 1.45 | -- | -- | -- | 0.855 | -- | -- |
| **383** | 4 | -0.42 | 0.77 | -- | -- | -- | -- | -- |
| **386** | 1 | -1.65 | -- | -- | -- | -- | 0.714 | -- |

**Table 14.** ***Statistical summary of reported data for standard reference sample N-78 (nutrient constituents) -- continued***

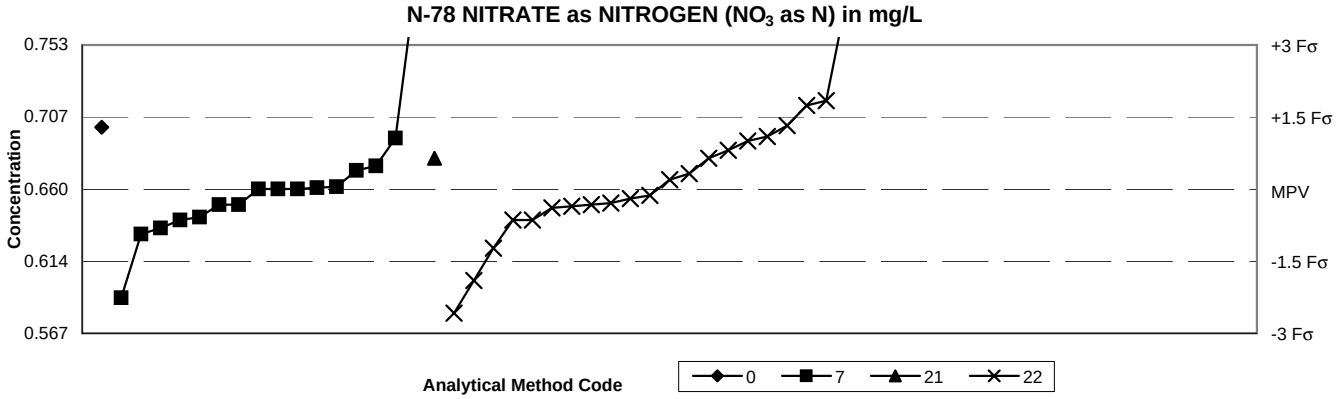



| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 7 | 20 | 21 | 22 | Method Codes | | |
| n = | 1 | 1 | 1 | 38 | 07 Ion chromatography | **MPV =** | **0.939 mg/L** |
| Minimum = | 1.01 | 0.703 | 1.1 | 0.69 | 20 Titration: colorimetric | F-pseudosigma = | 0.1038 |
| Maximum = | | | | 1.22 | 21 Titration: electrometric | n = | 41 |
| Median = | | | | 0.936 | 22 Colorimetric | Uh = | 1.01 |
| F-pseudosigma = | | | | 0.0971 | | Lh = | 0.870 |

| Lab | Rating | Z-value | Method Codes 7 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|
| **1** | 4 | 0.04 | -- | -- | -- | 0.943 |
| **5** | 4 | 0.40 | -- | -- | -- | 0.98 |
| **8** | 1 | 1.55 | -- | -- | 1.1 | -- |
| **10** | 4 | -0.28 | -- | -- | -- | 0.91 |
| **16** | 1 | -1.53 | -- | -- | -- | 0.78 |
| **18** | 1 | 1.68 | -- | -- | -- | 1.113 |
| **23** | 0 | 2.42 | -- | -- | -- | 1.19 |
| **38** | 3 | -0.66 | -- | -- | -- | 0.87 |
| **46** | 0 | 2.71 | -- | -- | -- | 1.22 |
| **59** | 3 | -0.95 | -- | -- | -- | 0.84 |
| **70** | 4 | 0.00 | -- | -- | -- | 0.939 |
| **72** | 0 | 2.55 | -- | -- | -- | 1.204 |
| **89** | 4 | -0.09 | -- | -- | -- | 0.93 |
| **90** | 4 | 0.02 | -- | -- | -- | 0.941 |
| **91** | 0 | -2.27 | -- | 0.703 | -- | -- |
| **102** | 3 | 0.88 | -- | -- | -- | 1.03 |
| **105** | 2 | 1.45 | -- | -- | -- | 1.09 |
| **113** | 4 | -0.28 | -- | -- | -- | 0.91 |
| **118** | 4 | -0.09 | -- | -- | -- | 0.93 |
| **134** | 4 | -0.43 | -- | -- | -- | 0.894 |
| **138** | 4 | -0.07 | -- | -- | -- | 0.932 |
| **142** | 3 | 0.60 | -- | -- | -- | 1.001 |
| **146** | 4 | 0.13 | -- | -- | -- | 0.952 |
| **180** | 3 | -0.54 | -- | -- | -- | 0.883 |
| **190** | 4 | 0.26 | -- | -- | -- | 0.966 |
| **193** | 4 | 0.01 | -- | -- | -- | 0.94 |
| **212** | 0 | -2.40 | -- | -- | -- | 0.69 |
| **220** | 2 | -1.42 | -- | -- | -- | 0.792 |
| **227** | 4 | -0.18 | -- | -- | -- | 0.92 |
| **247** | 3 | 0.59 | -- | -- | -- | 1 |
| **313** | 2 | -1.41 | -- | -- | -- | 0.793 |
| **320** | 4 | 0.34 | -- | -- | -- | 0.974 |
| **327** | 3 | -0.76 | -- | -- | -- | 0.86 |
| **328** | 3 | -0.95 | -- | -- | -- | 0.84 |
| **341** | 3 | -0.57 | -- | -- | -- | 0.88 |
| **366** | 2 | 1.36 | -- | -- | -- | 1.08 |
| **373** | 3 | -0.87 | -- | -- | -- | 0.849 |
| **378** | 3 | 0.68 | -- | -- | -- | 1.01 |
| **379** | 3 | 0.68 | 1.01 | -- | -- | -- |
| **380** | 2 | -1.11 | -- | -- | -- | 0.824 |

| Lab | Rating | Z-value | Method Codes 7 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|
| **386** | 3 | 0.78 | -- | -- | -- | 1.02 |

**Table 14.** ***Statistical summary of reported data for standard reference sample N-78 (nutrient constituents) -- continued***



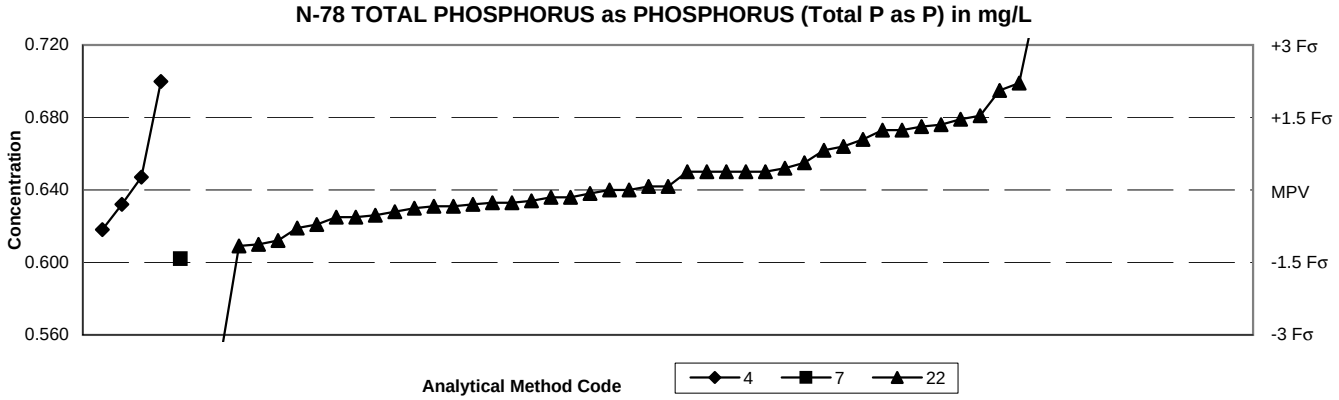

| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 7 | 21 | 22 | 40 | Method Codes | | |
| n = | 1 | 16 | 1 | 22 | 0 | 00 Other | **MPV =** | **0.660 mg/L** |
| Minimum = | 0.7 | 0.59 | 0.68 | 0.58 | | 07 Ion chromatography | F-pseudosigma = | 0.0310 |
| Maximum = | | 0.79 | | 0.784 | | 21 Titration: electrometric | Rating criterion = | 0.0330 |
| Median = | | 0.660 | | 0.661 | | 22 Colorimetric | n = | 40 |
| F-pseudosigma = | | 0.0191 | | 0.0340 | | 40 Ion selective electrode | Uh = | 0.688 |
| | | | | | | | Lh = | 0.646 |

*** Removed data points after determining that $NO_2$+$NO_3$ was reported**

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 21 | 22 | 40 |
| **1** | 4 | -0.18 | -- | -- | -- | 0.654 | -- |
| **5** | 2 | 1.24 | -- | -- | -- | 0.701 | -- |
| **8** | 0 | 3.94 | -- | 0.79 | -- | -- | -- |
| ***10** | 0 | 5.88 | -- | -- | -- | 0.854 | -- |
| **16** | 3 | -0.61 | -- | -- | -- | 0.64 | -- |
| ***18** | 0 | 6.58 | -- | -- | -- | 0.877 | -- |
| ***23** | 0 | 8.18 | -- | -- | -- | 0.93 | -- |
| **26** | 0 | -2.12 | -- | 0.59 | -- | -- | -- |
| **30** | 3 | 1.00 | -- | 0.693 | -- | -- | -- |
| **33** | 4 | -0.30 | -- | 0.65 | -- | -- | -- |
| ***38** | 0 | 6.24 | -- | -- | -- | 0.866 | -- |
| **42** | 3 | -0.76 | -- | 0.635 | -- | -- | -- |
| **45** | 4 | 0.36 | -- | 0.672 | -- | -- | -- |
| **46** | 3 | -0.88 | -- | 0.631 | -- | -- | -- |
| ***59** | 0 | 6.76 | -- | -- | -- | 0.883 | -- |
| ***64** | 0 | 7.58 | -- | -- | -- | 0.91 | -- |
| **70** | 4 | -0.30 | -- | -- | -- | 0.65 | -- |
| **72** | 2 | 1.03 | -- | -- | -- | 0.694 | -- |
| **76** | 4 | 0.05 | -- | 0.662 | -- | -- | -- |
| **80** | 0 | 3.64 | -- | -- | -- | 0.78 | -- |
| ***86** | 0 | 5.58 | -- | -- | -- | 0.844 | -- |
| ***89** | 0 | 6.45 | -- | -- | -- | 0.873 | -- |
| ***90** | 0 | 6.85 | -- | -- | -- | 0.886 | -- |
| ***91** | 0 | 6.76 | -- | -- | -- | 0.883 | -- |
| **102** | 4 | -0.30 | -- | 0.65 | -- | -- | -- |
| **105** | 3 | -0.61 | -- | -- | -- | 0.64 | -- |
| **113** | 4 | -0.33 | -- | -- | -- | 0.649 | -- |
| **118** | 3 | 0.94 | -- | -- | -- | 0.691 | -- |
| **134** | 3 | 0.61 | -- | -- | -- | 0.68 | -- |
| **138** | 4 | 0.00 | -- | 0.66 | -- | -- | -- |
| ***142** | 0 | 6.33 | -- | -- | -- | 0.869 | -- |
| ***146** | 0 | 6.61 | -- | -- | -- | 0.878 | -- |
| **180** | 4 | 0.45 | -- | 0.675 | -- | -- | -- |
| **183** | NR | -- | -- | -- | -- | -- | <1 |
| **190** | 4 | -0.27 | -- | -- | -- | 0.651 | -- |
| ***193** | 0 | 6.36 | -- | -- | -- | 0.87 | -- |
| **198** | 1 | 1.64 | -- | -- | -- | 0.714 | -- |
| **205** | 0 | 3.76 | -- | -- | -- | 0.784 | -- |
| **208** | 4 | 0.00 | -- | 0.66 | -- | -- | -- |
| ***212** | 0 | 6.06 | -- | -- | -- | 0.86 | -- |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 21 | 22 | 40 |
| **220** | 4 | 0.30 | -- | -- | -- | 0.67 | -- |
| **227** | 3 | -0.55 | -- | 0.642 | -- | -- | -- |
| **234** | 4 | 0.03 | -- | 0.661 | -- | -- | -- |
| **247** | 3 | -0.61 | -- | 0.64 | -- | -- | -- |
| **307** | 1 | -1.79 | -- | -- | -- | 0.601 | -- |
| **313** | 1 | 1.73 | -- | -- | -- | 0.717 | -- |
| **320** | 4 | -0.36 | -- | -- | -- | 0.648 | -- |
| ***323** | 0 | 6.97 | -- | -- | -- | 0.89 | -- |
| **341** | 2 | -1.15 | -- | -- | -- | 0.622 | -- |
| **356** | 3 | 0.61 | -- | -- | 0.68 | -- | -- |
| **366** | 4 | -0.12 | -- | -- | -- | 0.656 | -- |
| **373** | 4 | 0.18 | -- | -- | -- | 0.666 | -- |
| **378** | 3 | 0.76 | -- | -- | -- | 0.685 | -- |
| **379** | 4 | 0.00 | -- | 0.66 | -- | -- | -- |
| **380** | 0 | -2.42 | -- | -- | -- | 0.58 | -- |
| **383** | 2 | 1.21 | 0.7 | -- | -- | -- | -- |
| ***386** | 0 | 7.48 | -- | -- | -- | 0.907 | -- |

**Table 14.** ***Statistical summary of reported data for standard reference sample N-78 (nutrient constituents) -- continued***

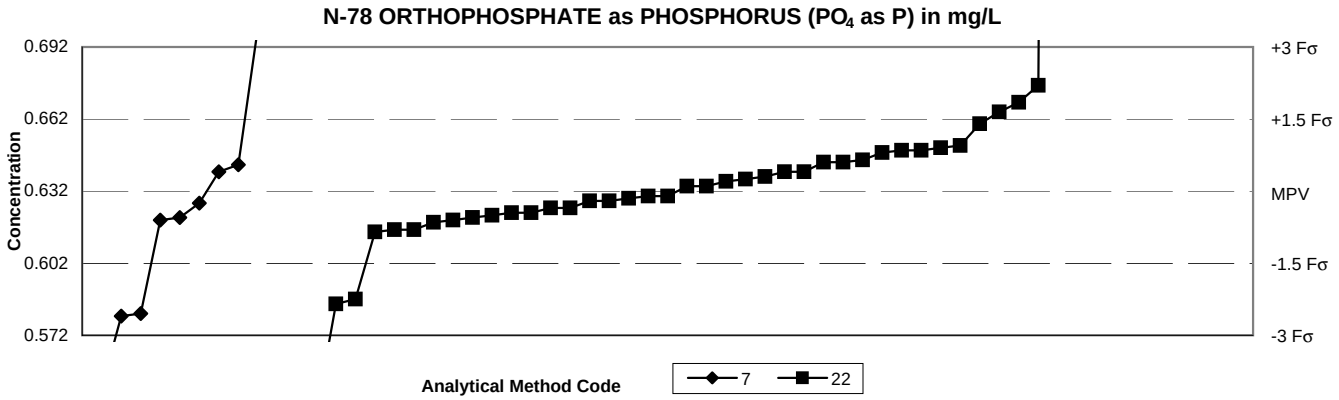



| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 4 | 7 | 22 | Method Codes | | |
| n = | 4 | 1 | 45 | 04 Inductively coupled plasma | **MPV =** | **0.640 mg/L** |
| Minimum = | 0.618 | 0.602 | 0.18 | 07 Ion chromatography | F-pseudosigma = | 0.0267 |
| Maximum = | 0.7 | | 0.93 | 22 Colorimetric | Rating criterion = | 0.0320 |
| Median = | | | 0.640 | | n = | 50 |
| F-pseudosigma = | | | 0.0252 | | Uh = | 0.664 |
| | | | | | Lh = | 0.628 |

| Lab | Rating | Z-value | Method Codes 4 | 7 | 22 |
|---|---|---|---|---|---|
| **1** | 3 | 0.75 | -- | -- | 0.664 |
| **5** | 1 | 1.72 | -- | -- | 0.695 |
| **8** | 1 | 1.88 | 0.7 | -- | -- |
| **10** | 4 | 0.38 | -- | -- | 0.652 |
| **16** | 4 | -0.47 | -- | -- | 0.625 |
| **23** | 4 | -0.31 | -- | -- | 0.63 |
| **33** | 2 | 1.28 | -- | -- | 0.681 |
| **38** | 4 | -0.28 | -- | -- | 0.631 |
| **42** | 3 | -0.69 | 0.618 | -- | -- |
| **45** | 4 | 0.00 | -- | -- | 0.64 |
| **46** | 2 | 1.13 | -- | -- | 0.676 |
| **59** | 4 | -0.13 | -- | -- | 0.636 |
| **64** | 4 | -0.22 | -- | -- | 0.633 |
| **70** | 2 | 1.09 | -- | -- | 0.675 |
| **72** | 2 | 1.22 | -- | -- | 0.679 |
| **86** | 4 | 0.22 | 0.647 | -- | -- |
| **89** | 3 | -0.59 | -- | -- | 0.621 |
| **91** | 3 | 0.88 | -- | -- | 0.668 |
| **102** | 4 | -0.22 | -- | -- | 0.633 |
| **105** | 4 | -0.25 | -- | -- | 0.632 |
| **113** | 4 | -0.19 | -- | -- | 0.634 |
| **118** | 4 | -0.28 | -- | -- | 0.631 |
| **134** | 4 | 0.00 | -- | -- | 0.64 |
| **138** | 4 | 0.31 | -- | -- | 0.65 |
| **142** | 4 | 0.06 | -- | -- | 0.642 |
| **146** | 0 | -3.00 | -- | -- | 0.544 |
| **180** | 3 | -0.88 | -- | -- | 0.612 |
| **183** | 4 | -0.06 | -- | -- | 0.638 |
| **190** | 4 | 0.06 | -- | -- | 0.642 |
| **193** | 2 | 1.03 | -- | -- | 0.673 |
| **198** | 4 | -0.38 | -- | -- | 0.628 |
| **212** | 4 | 0.31 | -- | -- | 0.65 |
| **220** | 1 | 1.84 | -- | -- | 0.699 |
| **227** | 4 | -0.25 | 0.632 | -- | -- |
| **234** | 0 | 3.44 | -- | -- | 0.75 |
| **247** | 0 | 9.06 | -- | -- | 0.93 |
| **307** | 3 | -0.66 | -- | -- | 0.619 |
| **313** | 2 | 1.03 | -- | -- | 0.673 |
| **323** | 4 | 0.31 | -- | -- | 0.65 |
| **327** | 4 | 0.31 | -- | -- | 0.65 |

| Lab | Rating | Z-value | Method Codes 4 | 7 | 22 |
|---|---|---|---|---|---|
| **328** | 3 | -0.94 | -- | -- | 0.61 |
| **341** | 4 | -0.13 | -- | -- | 0.636 |
| **356** | 4 | 0.31 | -- | -- | 0.65 |
| **366** | 3 | -0.97 | -- | -- | 0.609 |
| **373** | 4 | 0.47 | -- | -- | 0.655 |
| **378** | 4 | -0.44 | -- | -- | 0.626 |
| **379** | 2 | -1.19 | -- | 0.602 | -- |
| **380** | 3 | 0.69 | -- | -- | 0.662 |
| **386** | 4 | -0.47 | -- | -- | 0.625 |
| **391** | 0 | -14.38 | -- | -- | 0.18 |

**Table 14.** ***Statistical summary of reported data for standard reference sample N-78 (nutrient constituents) -- continued***




| SUMMARY | Methods | | | Statistics | |
|---|---|---|---|---|---|
| | 7 | 22 | Method Codes | | |
| n = | 10 | 40 | 07 Ion chromatography | **MPV =** | **0.632 mg/L** |
| Minimum = | 0.55 | 0.54 | 22 Colorimetric | F-pseudosigma = | 0.0200 |
| Maximum = | 0.713 | 2.93 | | Rating criterion = | 0.0316 |
| Median = | 0.624 | 0.634 | | n = | 50 |
| F-pseudosigma = | 0.0460 | 0.0193 | | Uh = | 0.648 |
| | | | | Lh = | 0.621 |

| | | | Method Codes | | | | | Method Codes | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 22 | **Lab** | Rating | Z-value | 7 | 22 |
| **1** | 4 | -0.06 | -- | 0.63 | **313** | 4 | -0.06 | -- | 0.63 |
| **5** | 3 | 0.54 | -- | 0.649 | **323** | 4 | -0.09 | -- | 0.629 |
| **8** | 0 | 2.15 | 0.7 | -- | **328** | 0 | 39.18 | -- | 1.87 |
| **10** | 4 | 0.51 | -- | 0.648 | **341** | 2 | -1.49 | -- | 0.585 |
| **16** | 4 | 0.16 | -- | 0.637 | **356** | 4 | -0.41 | -- | 0.619 |
| **18** | 4 | 0.06 | -- | 0.634 | **366** | 4 | -0.51 | -- | 0.616 |
| **23** | 4 | -0.38 | -- | 0.62 | **373** | 4 | 0.41 | -- | 0.645 |
| **26** | 0 | -2.59 | 0.55 | -- | **378** | 4 | -0.35 | -- | 0.621 |
| **30** | 4 | 0.35 | 0.643 | -- | **379** | 1 | -1.65 | 0.58 | -- |
| **33** | 3 | 0.54 | -- | 0.649 | **380** | 0 | 72.72 | -- | 2.93 |
| **38** | 4 | -0.32 | -- | 0.622 | **386** | 2 | -1.42 | -- | 0.587 |
| **42** | 4 | -0.35 | 0.621 | -- | | | | | |
| **45** | 4 | -0.16 | 0.627 | -- | | | | | |
| **46** | 2 | 1.39 | -- | 0.676 | | | | | |
| **50** | 4 | 0.13 | -- | 0.636 | | | | | |
| **59** | 4 | 0.25 | -- | 0.64 | | | | | |
| **64** | 4 | -0.28 | -- | 0.623 | | | | | |
| **70** | 4 | 0.38 | -- | 0.644 | | | | | |
| **72** | 4 | 0.19 | -- | 0.638 | | | | | |
| **80** | 3 | 0.89 | -- | 0.66 | | | | | |
| **86** | 1 | -1.61 | 0.581 | -- | | | | | |
| **89** | 4 | 0.38 | -- | 0.644 | | | | | |
| **102** | 4 | 0.25 | -- | 0.64 | | | | | |
| **105** | 4 | -0.13 | -- | 0.628 | | | | | |
| **113** | 4 | -0.22 | -- | 0.625 | | | | | |
| **118** | 4 | -0.13 | -- | 0.628 | | | | | |
| **134** | 4 | -0.22 | -- | 0.625 | | | | | |
| **138** | 4 | 0.06 | -- | 0.634 | | | | | |
| **142** | 2 | 1.17 | -- | 0.669 | | | | | |
| **146** | 2 | 1.04 | -- | 0.665 | | | | | |
| **180** | 3 | 0.60 | -- | 0.651 | | | | | |
| **183** | 3 | -0.54 | -- | 0.615 | | | | | |
| **190** | 4 | -0.28 | -- | 0.623 | | | | | |
| **198** | 4 | -0.51 | -- | 0.616 | | | | | |
| **208** | 0 | -4.18 | <0.5 | -- | | | | | |
| **212** | 0 | -2.91 | -- | 0.54 | | | | | |
| **220** | 4 | -0.38 | 0.62 | -- | | | | | |
| **227** | 3 | 0.57 | -- | 0.65 | | | | | |
| **234** | 0 | 2.56 | 0.713 | -- | | | | | |
| **247** | 4 | 0.25 | 0.64 | -- | | | | | |

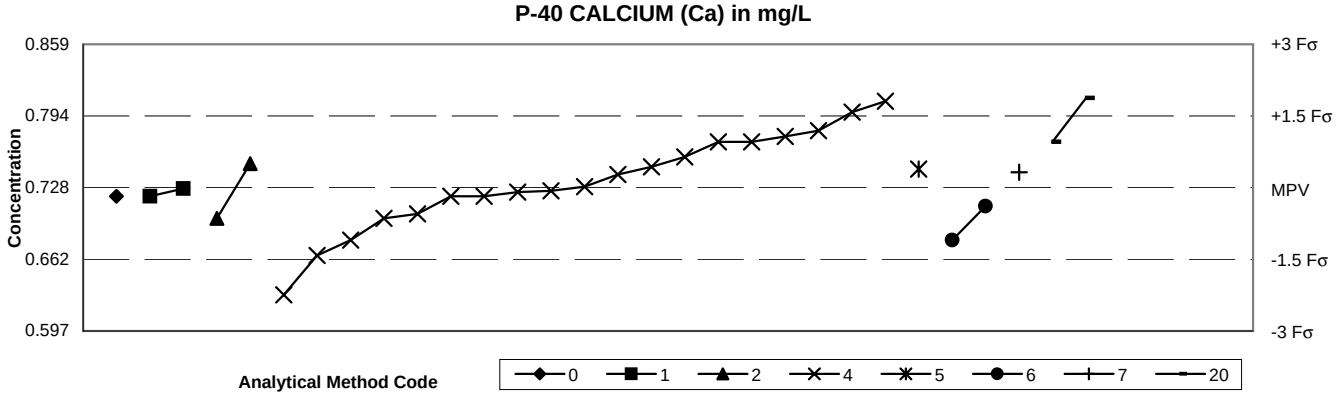
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents)***

**P-40 ACIDITY (as CaCO3) in mg/L**

| SUMMARY | | | Methods | Statistics |
|---|---|---|---|---|
| | 20 | 21 | Method Codes | |
| n = | 2 | 4 | 20 Titration: colorimetric | **inadequate data** |
| Minimum = | 4 | 2.3 | 21 Titration: electrometric | (n < 7) |
| Maximum = | 10 | 19 | | |
| Median = | | | | |
| F-pseudosigma = | | | | |

| | | | Method Codes | |
|---|---|---|---|---|
| **Lab** | Rating | Z-value | 20 | 21 |
| **8** | NR | -- | -- | <20 |
| **25** | NR | -- | -- | < 8 |
| **89** | NR | -- | -- | 2.3 |
| **105** | NR | -- | -- | 10.6 |
| **247** | NR | -- | -- | 19 |
| **273** | NR | -- | -- | 4.18 |
| **274** | NR | -- | 4 | -- |
| **328** | NR | -- | 10 | -- |

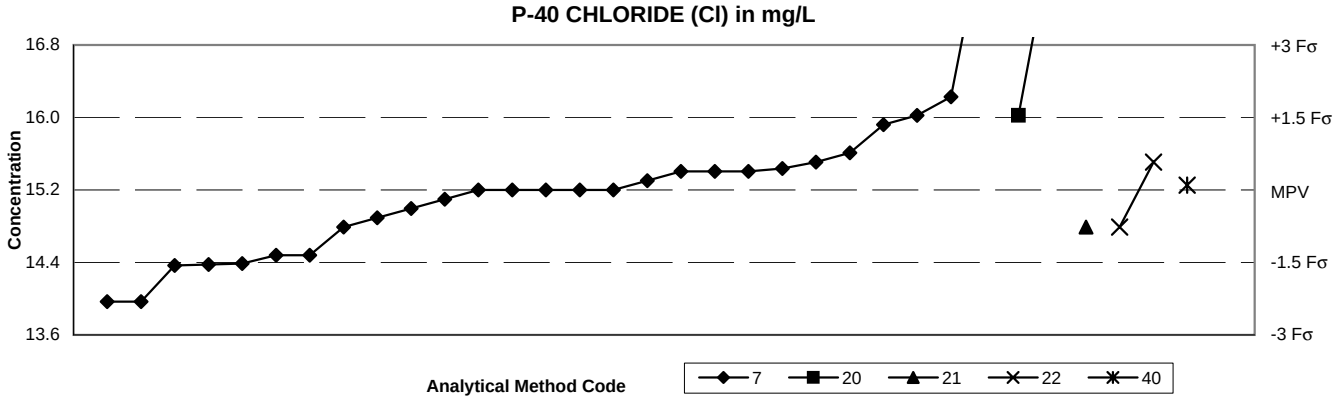
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 20 | Method Codes | |
| n = | 1 | 2 | 2 | 19 | 1 | 2 | 1 | 2 | 00 Other | **MPV = 0.728 mg/L** |
| Minimum = | 0.72 | 0.72 | 0.7 | 0.63 | 0.745 | 0.68 | 0.742 | 0.77 | 01 Atomic absorption: direct, air | F-pseudosigma = 0.0437 |
| Maximum = | | 0.727 | 0.75 | 0.807 | | 0.711 | | 0.81 | 02 Atomic absorption: direct, nitrous oxide | n = 30 |
| Median = | | | | 0.729 | | | | | 04 Inductively coupled plasma | Uh = 0.770 |
| F-pseudosigma = | | | | 0.0430 | | | | | 05 Direct current plasma | Lh = 0.711 |
| | | | | | | | | | 06 Inductively coupled plasma / mass spectrometry | |
| | | | | | | | | | 07 Ion chromatography | |
| | | | | | | | | | 20 Titration: colorimetric | |

| | | | Method Codes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 20 |
| **1** | 2 | -1.42 | -- | -- | -- | 0.666 | -- | -- | -- | -- |
| **2** | 4 | 0.32 | -- | -- | -- | -- | -- | -- | 0.742 | -- |
| **5** | 4 | -0.07 | -- | -- | -- | 0.725 | -- | -- | -- | -- |
| **8** | 2 | 1.19 | -- | -- | -- | 0.78 | -- | -- | -- | -- |
| **23** | 3 | -0.64 | -- | -- | 0.7 | -- | -- | -- | -- | -- |
| **25** | 1 | 1.81 | -- | -- | -- | 0.807 | -- | -- | -- | -- |
| **33** | 4 | 0.39 | -- | -- | -- | -- | 0.745 | -- | -- | -- |
| **38** | 4 | 0.50 | -- | -- | 0.75 | -- | -- | -- | -- | -- |
| **45** | 4 | -0.39 | -- | -- | -- | -- | -- | 0.711 | -- | -- |
| **46** | 4 | 0.02 | -- | -- | -- | 0.729 | -- | -- | -- | -- |
| **64** | 4 | -0.18 | -- | 0.72 | -- | -- | -- | -- | -- | -- |
| **105** | 1 | 1.58 | -- | -- | -- | 0.797 | -- | -- | -- | -- |
| **110** | 3 | 0.64 | -- | -- | -- | 0.756 | -- | -- | -- | -- |
| **134** | 4 | -0.09 | -- | -- | -- | 0.724 | -- | -- | -- | -- |
| **138** | 4 | 0.43 | -- | -- | -- | 0.747 | -- | -- | -- | -- |
| **180** | 3 | -0.55 | -- | -- | -- | 0.704 | -- | -- | -- | -- |
| **190** | 4 | 0.27 | -- | -- | -- | 0.74 | -- | -- | -- | -- |
| **193** | 2 | -1.10 | -- | -- | -- | -- | -- | 0.68 | -- | -- |
| **247** | 0 | -2.24 | -- | -- | -- | 0.63 | -- | -- | -- | -- |
| **265** | 2 | -1.10 | -- | -- | -- | 0.68 | -- | -- | -- | -- |
| **273** | 2 | 1.07 | -- | -- | -- | 0.775 | -- | -- | -- | -- |
| **274** | 1 | 1.87 | -- | -- | -- | -- | -- | -- | -- | 0.81 |
| **279** | 4 | -0.18 | 0.72 | -- | -- | -- | -- | -- | -- | -- |
| **301** | 4 | -0.02 | -- | 0.727 | -- | -- | -- | -- | -- | -- |
| **323** | 3 | 0.96 | -- | -- | -- | 0.77 | -- | -- | -- | -- |
| **326** | 4 | -0.18 | -- | -- | -- | 0.72 | -- | -- | -- | -- |
| **328** | 3 | 0.96 | -- | -- | -- | 0.77 | -- | -- | -- | -- |
| **333** | 4 | -0.18 | -- | -- | -- | 0.72 | -- | -- | -- | -- |
| **379** | 3 | 0.96 | -- | -- | -- | -- | -- | -- | -- | 0.77 |
| **383** | 3 | -0.64 | -- | -- | -- | 0.7 | -- | -- | -- | -- |

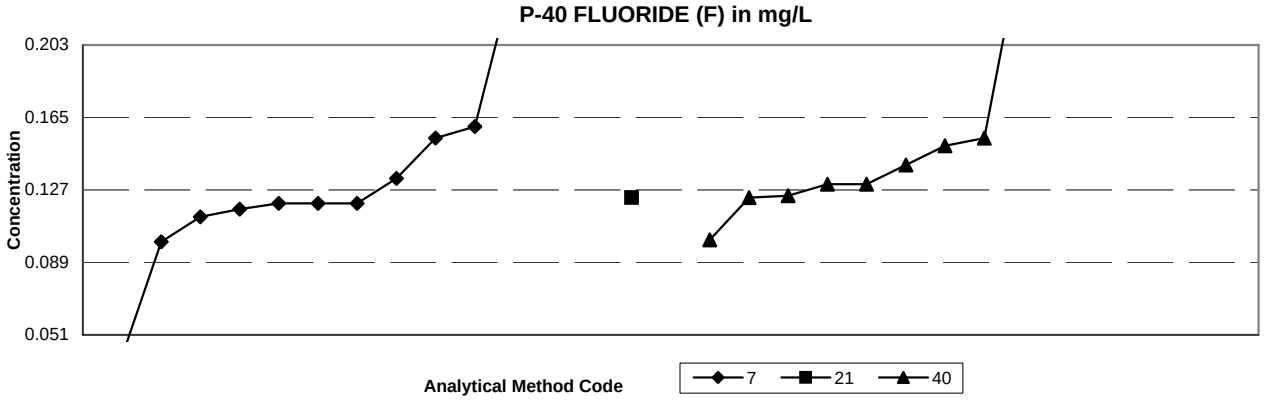
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 7 | 20 | 21 | 22 | 40 | Method Codes | | |
| n = | 27 | 2 | 1 | 2 | 1 | 07 Ion chromatography | **MPV =** | **15.2 mg/L** |
| Minimum = | 14 | 16 | 14.8 | 14.8 | 15.25 | 20 Titration: colorimetric | F-pseudosigma = | 0.52 |
| Maximum = | 18.05 | 17.92 | | 15.5 | | 21 Titration: electrometric | Rating criterion = | 0.76 |
| Median = | 15.2 | | | | | 22 Colorimetric | n = | 33 |
| F-pseudosigma = | 0.57 | | | | | 40 Ion selective electrode | Uh = | 15.5 |
| | | | | | | | Lh = | 14.8 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 20 | 21 | 22 | 40 |
| **1** | 2 | -1.04 | 14.41 | -- | -- | -- | -- |
| **5** | 4 | 0.30 | 15.43 | -- | -- | -- | -- |
| **8** | 4 | 0.26 | 15.4 | -- | -- | -- | -- |
| **23** | 4 | 0.13 | 15.3 | -- | -- | -- | -- |
| **25** | 4 | 0.00 | 15.2 | -- | -- | -- | -- |
| **33** | 0 | 3.75 | 18.05 | -- | -- | -- | -- |
| **45** | 4 | 0.26 | 15.4 | -- | -- | -- | -- |
| **46** | 3 | -0.53 | -- | -- | -- | 14.8 | -- |
| **59** | 4 | 0.00 | 15.2 | -- | -- | -- | -- |
| **64** | 2 | 1.05 | 16 | -- | -- | -- | -- |
| **89** | 3 | 0.53 | 15.6 | -- | -- | -- | -- |
| **105** | 4 | 0.26 | 15.4 | -- | -- | -- | -- |
| **110** | 4 | -0.39 | 14.9 | -- | -- | -- | -- |
| **113** | 4 | 0.00 | 15.2 | -- | -- | -- | -- |
| **134** | 4 | -0.13 | 15.1 | -- | -- | -- | -- |
| **138** | 4 | 0.00 | 15.2 | -- | -- | -- | -- |
| **180** | 3 | 0.92 | 15.9 | -- | -- | -- | -- |
| **190** | 2 | -1.05 | 14.4 | -- | -- | -- | -- |
| **208** | 3 | -0.53 | 14.8 | -- | -- | -- | -- |
| **247** | 3 | -0.92 | 14.5 | -- | -- | -- | -- |
| **265** | 1 | -1.58 | 14 | -- | -- | -- | -- |
| **273** | 4 | 0.07 | -- | -- | -- | -- | 15.25 |
| **274** | 0 | 3.58 | -- | 17.92 | -- | -- | -- |
| **277** | 4 | -0.26 | 15 | -- | -- | -- | -- |
| **301** | 2 | -1.07 | 14.39 | -- | -- | -- | -- |
| **321** | 2 | 1.32 | 16.2 | -- | -- | -- | -- |
| **323** | 3 | -0.92 | 14.5 | -- | -- | -- | -- |
| **326** | 3 | -0.53 | -- | -- | 14.8 | -- | -- |
| **327** | 2 | 1.05 | -- | 16 | -- | -- | -- |
| **328** | 1 | -1.58 | 14 | -- | -- | -- | -- |
| **333** | 4 | 0.00 | 15.2 | -- | -- | -- | -- |
| **379** | 4 | 0.39 | -- | -- | -- | 15.5 | -- |
| **383** | 4 | 0.39 | 15.5 | -- | -- | -- | -- |

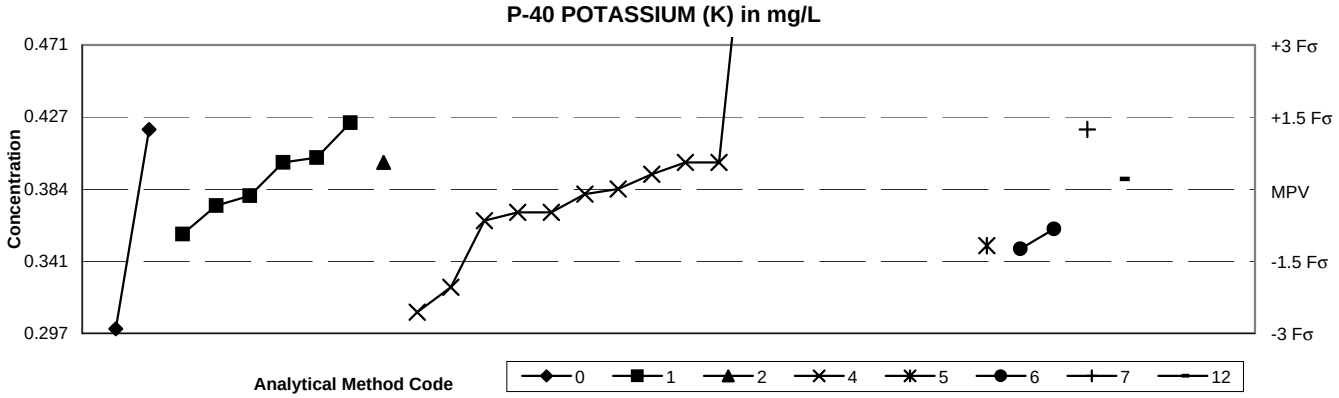
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 7 | 21 | 22 | 40 | Method Codes | | |
| n = | 12 | 1 | 0 | 9 | 07 Ion chromatography | **MPV =** | **0.127 mg/L** |
| Minimum = | 0.04 | 0.123 | | 0.101 | 21 Titration: electrometric | F-pseudosigma = | 0.0252 |
| Maximum = | 0.25 | | | 0.26 | 22 Colorimetric | n = | 22 |
| Median = | 0.120 | | | 0.130 | 40 Ion selective electrode | Uh = | 0.154 |
| F-pseudosigma = | 0.0311 | | | 0.0193 | | Lh = | 0.120 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 7 | 21 | 22 | 40 |
| **1** | 2 | 1.07 | 0.154 | -- | -- | -- |
| **2** | 4 | -0.28 | 0.12 | -- | -- | -- |
| **5** | 2 | 1.31 | 0.16 | -- | -- | -- |
| **23** | 4 | -0.40 | 0.117 | -- | -- | -- |
| **25** | 0 | 4.48 | 0.24 | -- | -- | -- |
| **33** | 0 | 4.88 | 0.25 | -- | -- | -- |
| **45** | 4 | 0.24 | 0.133 | -- | -- | -- |
| **46** | 2 | -1.03 | -- | -- | -- | 0.101 |
| **59** | 4 | 0.12 | -- | -- | -- | 0.13 |
| **105** | NR | -- | <0.20 | -- | -- | -- |
| **110** | 4 | -0.12 | -- | -- | -- | 0.124 |
| **113** | 2 | -1.07 | 0.1 | -- | -- | -- |
| **134** | 4 | 0.12 | -- | -- | -- | 0.13 |
| **138** | 2 | 1.07 | -- | -- | -- | 0.154 |
| **180** | 3 | -0.56 | 0.113 | -- | -- | -- |
| **190** | 4 | -0.16 | -- | -- | -- | 0.123 |
| **247** | 4 | -0.28 | 0.12 | -- | -- | -- |
| **265** | 0 | -3.45 | 0.04 | -- | -- | -- |
| **273** | 3 | 0.52 | -- | -- | -- | 0.14 |
| **274** | NR | -- | -- | -- | <0.1 | -- |
| **323** | 4 | -0.28 | 0.12 | -- | -- | -- |
| **327** | 0 | 5.28 | -- | -- | -- | 0.26 |
| **328** | 3 | 0.91 | -- | -- | -- | 0.15 |
| **379** | 4 | -0.16 | -- | 0.123 | -- | -- |

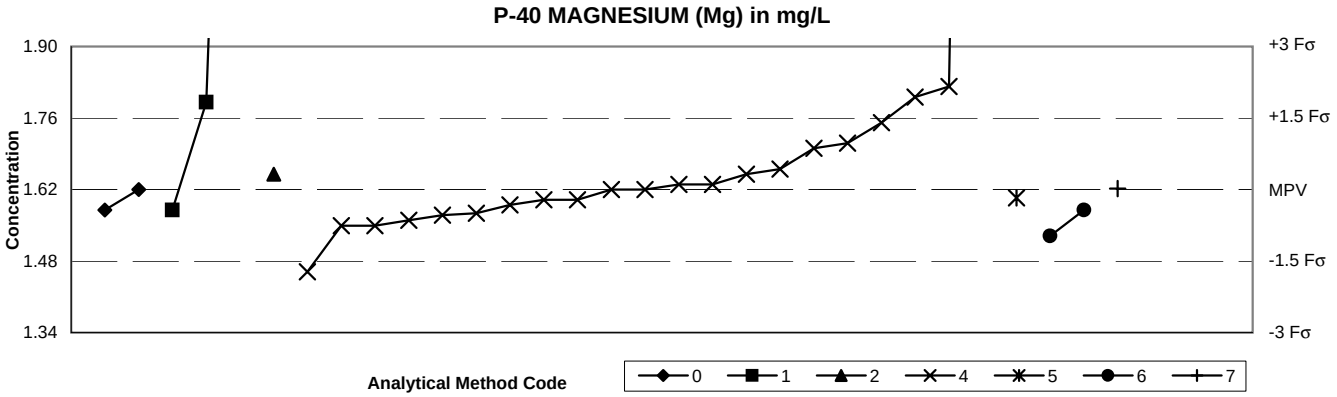
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 12 | Method Codes | | |
| n = | 2 | 6 | 1 | 13 | 1 | 2 | 1 | 1 | 00 Other | **MPV =** | **0.384 mg/L** |
| Minimum = | 0.3 | 0.357 | 0.4 | 0.31 | 0.35 | 0.348 | 0.42 | 0.39 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.0289 |
| Maximum = | 0.42 | 0.424 | | 1.49 | | 0.36 | | | 02 Atomic absorption: direct, nitrous oxide | n = | 27 |
| Median = | | 0.390 | | 0.384 | | | | | 04 Inductively coupled plasma | Uh = | 0.402 |
| F-pseudosigma = | | 0.0215 | | 0.0222 | | | | | 05 Direct current plasma | Lh = | 0.363 |
| | | | | | | | | | 06 Inductively coupled plasma / mass spectrometry | | |
| | | | | | | | | | 07 Ion chromatography | | |
| | | | | | | | | | 12 Flame emission | | |

| | | | Method Codes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 12 |
| **1** | 4 | 0.31 | -- | -- | -- | 0.393 | -- | -- | -- | -- |
| **2** | 2 | 1.25 | -- | -- | -- | -- | -- | -- | 0.42 | -- |
| **5** | NR | -- | -- | -- | -- | <1.00 | -- | -- | -- | -- |
| **8** | 3 | 0.55 | -- | -- | -- | 0.4 | -- | -- | -- | -- |
| **23** | 3 | 0.55 | -- | -- | 0.4 | -- | -- | -- | -- | -- |
| **25** | 0 | -2.04 | -- | -- | -- | 0.325 | -- | -- | -- | -- |
| **33** | 2 | -1.18 | -- | -- | -- | -- | 0.35 | -- | -- | -- |
| **38** | 3 | 0.55 | -- | 0.4 | -- | -- | -- | -- | -- | -- |
| **45** | 2 | -1.25 | -- | -- | -- | -- | -- | 0.348 | -- | -- |
| **46** | 3 | 0.66 | -- | 0.403 | -- | -- | -- | -- | -- | -- |
| **64** | 4 | -0.14 | -- | 0.38 | -- | -- | -- | -- | -- | -- |
| **86** | 4 | 0.00 | -- | -- | -- | 0.384 | -- | -- | -- | -- |
| **105** | NR | -- | -- | -- | -- | <1.00 | -- | -- | -- | -- |
| **110** | 3 | -0.93 | -- | 0.357 | -- | -- | -- | -- | -- | -- |
| **134** | 4 | -0.35 | -- | 0.374 | -- | -- | -- | -- | -- | -- |
| **138** | 4 | -0.10 | -- | -- | -- | 0.381 | -- | -- | -- | -- |
| **180** | NR | -- | -- | -- | -- | <0.45 | -- | -- | -- | -- |
| **190** | 0 | 7.13 | -- | -- | -- | 0.59 | -- | -- | -- | -- |
| **193** | 3 | -0.83 | -- | -- | -- | -- | -- | 0.36 | -- | -- |
| **247** | 0 | -2.56 | -- | -- | -- | 0.31 | -- | -- | -- | -- |
| **265** | 4 | -0.48 | -- | -- | -- | 0.37 | -- | -- | -- | -- |
| **273** | 3 | -0.66 | -- | -- | -- | 0.365 | -- | -- | -- | -- |
| **274** | 4 | 0.21 | -- | -- | -- | -- | -- | -- | -- | 0.39 |
| **277** | 2 | 1.38 | -- | 0.424 | -- | -- | -- | -- | -- | -- |
| **279** | 0 | -2.91 | 0.3 | -- | -- | -- | -- | -- | -- | -- |
| **323** | NR | -- | -- | -- | -- | <0.50 | -- | -- | -- | -- |
| **326** | 2 | 1.25 | 0.42 | -- | -- | -- | -- | -- | -- | -- |
| **328** | 0 | 26.84 | -- | -- | -- | 1.16 | -- | -- | -- | -- |
| **333** | 3 | 0.55 | -- | -- | -- | 0.4 | -- | -- | -- | -- |
| **379** | 0 | 38.26 | -- | -- | -- | 1.49 | -- | -- | -- | -- |
| **383** | 4 | -0.48 | -- | -- | -- | 0.37 | -- | -- | -- | -- |

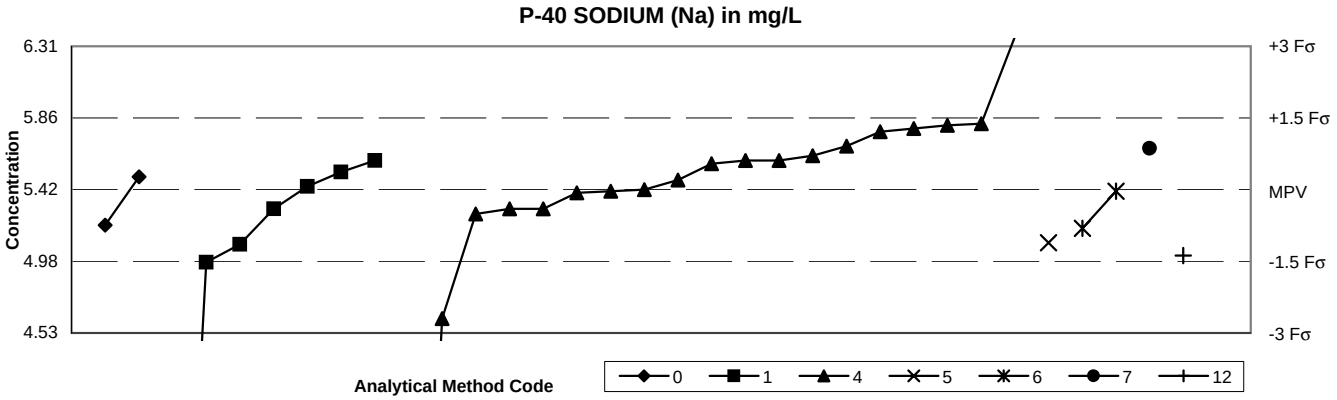
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | | | | Statistics |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 20 | Method Codes | |
| n = | 2 | 3 | 1 | 21 | 1 | 2 | 1 | 1 | 00 Other | **MPV = 1.62 mg/L** |
| Minimum = | 1.58 | 1.58 | 1.65 | 1.46 | 1.604 | 1.53 | 1.622 | 1.94 | 01 Atomic absorption: direct, air | F-pseudosigma = 0.093 |
| Maximum = | 1.62 | 3.578 | | 5.39 | | 1.58 | | | 02 Atomic absorption: direct, nitrous oxide | n = 32 |
| Median = | | | | 1.62 | | | | | 04 Inductively coupled plasma | Uh = 1.71 |
| F-pseudosigma = | | | | 0.093 | | | | | 05 Direct current plasma | Lh = 1.58 |
| | | | | | | | | | 06 Inductively coupled plasma / mass spectrometry | |
| | | | | | | | | | 07 Ion chromatography | |
| | | | | | | | | | 20 Titration: colorimetric | |

| | | | Method Codes | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 2 | 4 | 5 | 6 | 7 | 20 |
| **1** | 3 | -0.65 | -- | -- | -- | 1.56 | -- | -- | -- | -- |
| **2** | 4 | 0.02 | -- | -- | -- | -- | -- | -- | 1.622 | -- |
| **5** | 3 | -0.76 | -- | -- | -- | 1.55 | -- | -- | -- | -- |
| **8** | 1 | 1.94 | -- | -- | -- | 1.8 | -- | -- | -- | -- |
| **23** | 4 | 0.32 | -- | -- | 1.65 | -- | -- | -- | -- | -- |
| **25** | 3 | -0.54 | -- | -- | -- | 1.57 | -- | -- | -- | -- |
| **33** | 4 | -0.17 | -- | -- | -- | -- | 1.604 | -- | -- | -- |
| **38** | 1 | 1.83 | -- | 1.79 | -- | -- | -- | -- | -- | -- |
| **45** | 4 | -0.43 | -- | -- | -- | -- | -- | 1.58 | -- | -- |
| **46** | 3 | -0.76 | -- | -- | -- | 1.55 | -- | -- | -- | -- |
| **64** | 4 | -0.43 | -- | 1.58 | -- | -- | -- | -- | -- | -- |
| **86** | 4 | 0.32 | -- | -- | -- | 1.65 | -- | -- | -- | -- |
| **105** | 2 | 1.40 | -- | -- | -- | 1.75 | -- | -- | -- | -- |
| **110** | 4 | -0.50 | -- | -- | -- | 1.574 | -- | -- | -- | -- |
| **113** | 4 | -0.22 | -- | -- | -- | 1.6 | -- | -- | -- | -- |
| **134** | 4 | 0.00 | -- | -- | -- | 1.62 | -- | -- | -- | -- |
| **138** | 4 | 0.43 | -- | -- | -- | 1.66 | -- | -- | -- | -- |
| **180** | 4 | -0.32 | -- | -- | -- | 1.59 | -- | -- | -- | -- |
| **190** | 3 | 0.97 | -- | -- | -- | 1.71 | -- | -- | -- | -- |
| **193** | 3 | -0.97 | -- | -- | -- | -- | -- | 1.53 | -- | -- |
| **247** | 1 | -1.73 | -- | -- | -- | 1.46 | -- | -- | -- | -- |
| **265** | 4 | 0.11 | -- | -- | -- | 1.63 | -- | -- | -- | -- |
| **273** | 0 | 2.16 | -- | -- | -- | 1.82 | -- | -- | -- | -- |
| **274** | 0 | 3.45 | -- | -- | -- | -- | -- | -- | -- | 1.94 |
| **279** | 4 | -0.43 | 1.58 | -- | -- | -- | -- | -- | -- | -- |
| **301** | 0 | 21.13 | -- | 3.578 | -- | -- | -- | -- | -- | -- |
| **323** | 4 | 0.00 | -- | -- | -- | 1.62 | -- | -- | -- | -- |
| **326** | 4 | 0.00 | 1.62 | -- | -- | -- | -- | -- | -- | -- |
| **328** | 3 | 0.86 | -- | -- | -- | 1.7 | -- | -- | -- | -- |
| **333** | 4 | 0.11 | -- | -- | -- | 1.63 | -- | -- | -- | -- |
| **379** | 0 | 40.69 | -- | -- | -- | 5.39 | -- | -- | -- | -- |
| **383** | 4 | -0.22 | -- | -- | -- | 1.6 | -- | -- | -- | -- |

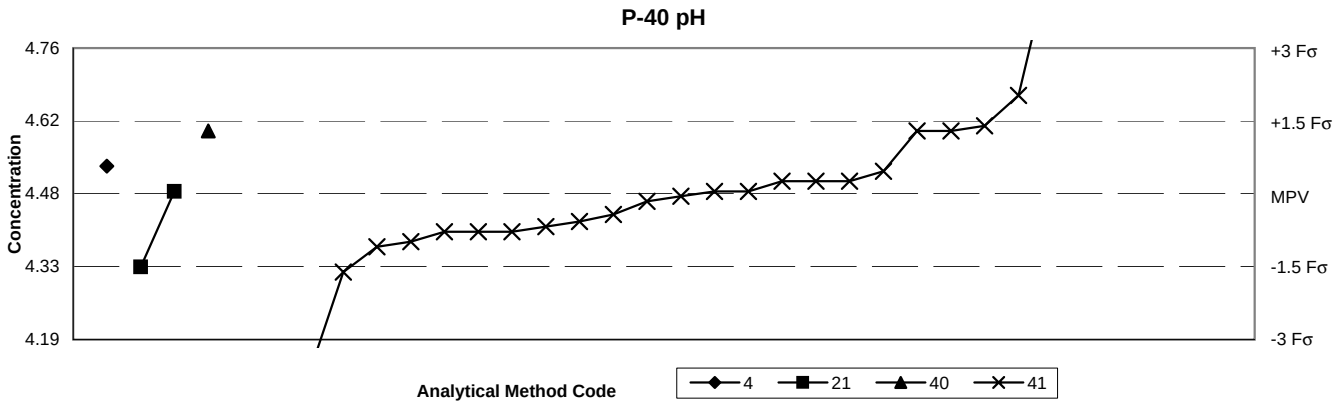
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 4 | 5 | 6 | 7 | 12 | Method Codes | | |
| n = | 2 | 7 | 19 | 1 | 2 | 1 | 1 | 00 Other | **MPV =** | **5.42 mg/L** |
| Minimum = | 5.2 | 1.14 | 0.491 | 5.091 | 5.18 | 5.676 | 5.01 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.297 |
| Maximum = | 5.5 | 5.6 | 6.37 | | 5.41 | | | 04 Inductively coupled plasma | n = | 33 |
| Median = | | 5.30 | 5.58 | | | | | 05 Direct current plasma | Uh = | 5.60 |
| F-pseudosigma = | | 0.341 | 0.285 | | | | | 06 Inductively coupled plasma / mass spectrometry | Lh = | 5.20 |
| | | | | | | | | 07 Ion chromatography | | |
| | | | | | | | | 12 Flame emission | | |

| | | | Method Codes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 4 | 5 | 6 | 7 | 12 |
| **1** | 4 | -0.40 | -- | -- | 5.3 | -- | -- | -- | -- |
| **2** | 3 | 0.86 | -- | -- | -- | -- | -- | 5.676 | -- |
| **5** | 4 | 0.20 | -- | -- | 5.48 | -- | -- | -- | -- |
| **8** | 2 | 1.28 | -- | -- | 5.8 | -- | -- | -- | -- |
| **23** | 0 | -14.43 | -- | 1.14 | -- | -- | -- | -- | -- |
| **25** | 3 | 0.91 | -- | -- | 5.69 | -- | -- | -- | -- |
| **33** | 2 | -1.11 | -- | -- | -- | 5.091 | -- | -- | -- |
| **38** | 4 | 0.07 | -- | 5.44 | -- | -- | -- | -- | -- |
| **45** | 4 | -0.03 | -- | -- | -- | -- | 5.41 | -- | -- |
| **46** | 4 | -0.03 | -- | -- | 5.41 | -- | -- | -- | -- |
| **64** | 3 | 0.61 | -- | 5.6 | -- | -- | -- | -- | -- |
| **86** | 3 | 0.61 | -- | -- | 5.6 | -- | -- | -- | -- |
| **105** | 2 | 1.35 | -- | -- | 5.82 | -- | -- | -- | -- |
| **110** | 2 | -1.15 | -- | 5.08 | -- | -- | -- | -- | -- |
| **113** | 4 | -0.07 | -- | -- | 5.4 | -- | -- | -- | -- |
| **134** | 4 | 0.37 | -- | 5.53 | -- | -- | -- | -- | -- |
| **138** | 2 | 1.38 | -- | -- | 5.83 | -- | -- | -- | -- |
| **180** | 4 | 0.00 | -- | -- | 5.42 | -- | -- | -- | -- |
| **190** | 0 | -2.70 | -- | -- | 4.62 | -- | -- | -- | -- |
| **193** | 3 | -0.81 | -- | -- | -- | -- | 5.18 | -- | -- |
| **247** | 4 | -0.51 | -- | -- | 5.27 | -- | -- | -- | -- |
| **265** | 4 | -0.40 | -- | -- | 5.3 | -- | -- | -- | -- |
| **273** | 2 | 1.21 | -- | -- | 5.78 | -- | -- | -- | -- |
| **274** | 2 | -1.38 | -- | -- | -- | -- | -- | -- | 5.01 |
| **277** | 4 | -0.40 | -- | 5.3 | -- | -- | -- | -- | -- |
| **279** | 4 | 0.27 | 5.5 | -- | -- | -- | -- | -- | -- |
| **321** | 1 | -1.52 | -- | 4.97 | -- | -- | -- | -- | -- |
| **323** | 3 | 0.54 | -- | -- | 5.58 | -- | -- | -- | -- |
| **326** | 3 | -0.74 | 5.2 | -- | -- | -- | -- | -- | -- |
| **328** | 0 | 3.20 | -- | -- | 6.37 | -- | -- | -- | -- |
| **333** | 3 | 0.61 | -- | -- | 5.6 | -- | -- | -- | -- |
| **379** | 0 | -16.62 | -- | -- | 0.491 | -- | -- | -- | -- |
| **383** | 3 | 0.71 | -- | -- | 5.63 | -- | -- | -- | -- |

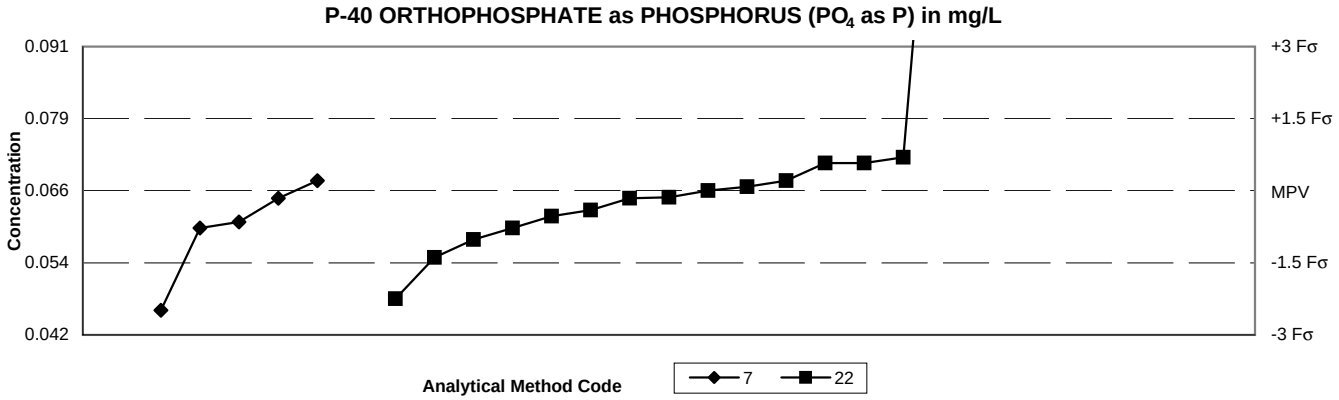
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | Statistics | |
|---|---|---|---|---|---|---|---|
| | 4 | 21 | 40 | 41 | Method Codes | | |
| n = | 1 | 2 | 1 | 26 | 04 Inductively coupled plasma | **MPV =** | **4.48** |
| Minimum = | 4.53 | 4.33 | 4.6 | 3.94 | 21 Titration: electrometric | F-pseudosigma = | 0.096 |
| Maximum = | | 4.48 | | 6.3 | 40 Ion selective electrode | Rating criterion = | 0.224 |
| Median = | | | | 4.47 | 41 Electrometric | n = | 30 |
| F-pseudosigma = | | | | 0.089 | | Uh = | 4.53 |
| | | | | | | Lh = | 4.40 |

| | | | Method Codes | | | |
|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 4 | 21 | 40 | 41 |
| **1** | 0 | 2.12 | -- | -- | -- | 4.95 |
| **2** | 4 | -0.18 | -- | -- | -- | 4.434 |
| **5** | 1 | -1.90 | -- | -- | -- | 4.05 |
| **8** | 4 | -0.34 | -- | -- | -- | 4.4 |
| **23** | 4 | 0.11 | -- | -- | -- | 4.5 |
| **25** | 3 | -0.65 | -- | 4.33 | -- | -- |
| **33** | 4 | -0.07 | -- | -- | -- | 4.46 |
| **38** | 4 | -0.34 | -- | -- | -- | 4.4 |
| **45** | 4 | -0.34 | -- | -- | -- | 4.4 |
| **46** | 3 | 0.56 | -- | -- | -- | 4.6 |
| **59** | 0 | -2.39 | -- | -- | -- | 3.94 |
| **64** | 4 | -0.47 | -- | -- | -- | 4.37 |
| **86** | 4 | 0.25 | 4.53 | -- | -- | -- |
| **89** | 0 | 8.16 | -- | -- | -- | 6.3 |
| **105** | 4 | 0.11 | -- | -- | -- | 4.5 |
| **113** | 4 | -0.25 | -- | -- | -- | 4.42 |
| **134** | 4 | 0.02 | -- | -- | -- | 4.48 |
| **138** | 4 | 0.11 | -- | -- | -- | 4.5 |
| **180** | 3 | 0.60 | -- | -- | -- | 4.61 |
| **190** | 4 | 0.02 | -- | 4.48 | -- | -- |
| **193** | 4 | 0.20 | -- | -- | -- | 4.52 |
| **247** | 4 | -0.29 | -- | -- | -- | 4.41 |
| **273** | 4 | 0.02 | -- | -- | -- | 4.48 |
| **274** | 3 | -0.69 | -- | -- | -- | 4.32 |
| **277** | 3 | 0.56 | -- | -- | -- | 4.6 |
| **321** | 4 | -0.42 | -- | -- | -- | 4.38 |
| **323** | 3 | 0.56 | -- | -- | 4.6 | -- |
| **328** | 3 | 0.87 | -- | -- | -- | 4.67 |
| **333** | 4 | -0.02 | -- | -- | -- | 4.47 |
| **379** | 1 | -1.59 | -- | -- | -- | 4.12 |

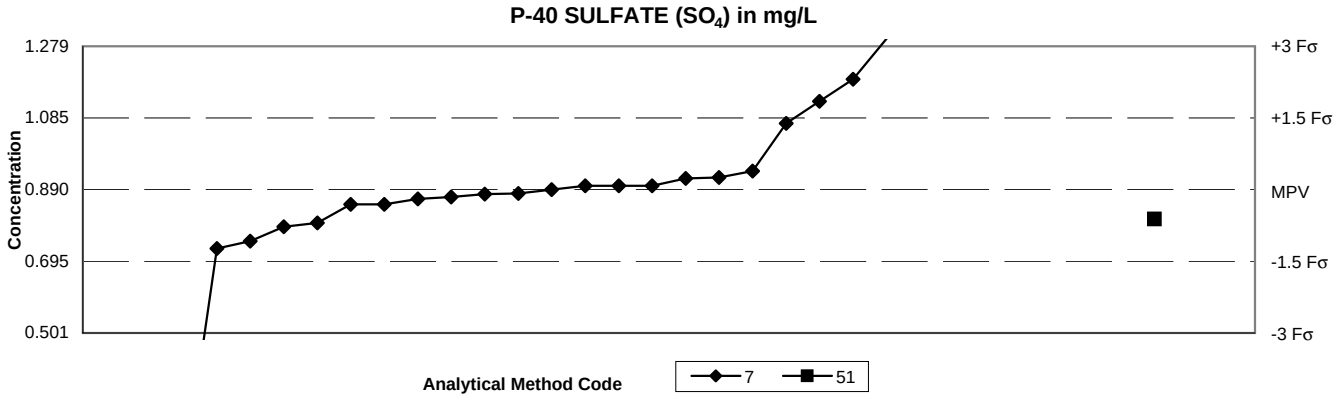
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 0 | 7 | 22 | Method Codes | | |
| n = | 1 | 5 | 19 | 00 Other | **MPV =** | **0.066 mg/L** |
| Minimum = | 0.119 | 0.046 | 0.048 | 07 Ion chromatography | F-pseudosigma = | 0.0082 |
| Maximum = | | 0.068 | 0.613 | 22 Colorimetric | n = | 25 |
| Median = | | 0.061 | 0.067 | | Uh = | 0.072 |
| F-pseudosigma = | | 0.0037 | 0.0360 | | Lh = | 0.061 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 7 | 22 |
| **5** | 3 | 0.70 | -- | -- | 0.072 |
| **8** | NR | -- | -- | <0.3 | -- |
| **23** | 4 | -0.40 | -- | -- | 0.063 |
| **25** | 2 | -1.02 | -- | -- | 0.058 |
| **33** | 0 | 11.49 | -- | -- | 0.16 |
| **38** | 4 | -0.16 | -- | -- | 0.065 |
| **45** | 4 | -0.16 | -- | 0.065 | -- |
| **46** | 4 | 0.21 | -- | -- | 0.068 |
| **59** | 3 | -0.65 | -- | 0.061 | -- |
| **64** | 0 | 17.01 | -- | -- | 0.205 |
| **89** | 4 | -0.13 | -- | -- | 0.065 |
| **105** | 0 | -2.24 | -- | -- | 0.048 |
| **113** | 4 | 0.09 | -- | -- | 0.067 |
| **134** | 3 | -0.53 | -- | -- | 0.062 |
| **138** | 4 | 0.00 | -- | -- | 0.066 |
| **180** | 3 | -0.77 | -- | -- | 0.06 |
| **190** | 2 | -1.39 | -- | -- | 0.055 |
| **247** | 3 | -0.77 | -- | 0.06 | -- |
| **273** | 0 | 67.05 | -- | -- | 0.613 |
| **274** | 0 | 21.30 | -- | -- | 0.24 |
| **301** | 0 | 6.46 | 0.119 | -- | -- |
| **321** | 3 | 0.58 | -- | -- | 0.071 |
| **323** | 3 | 0.58 | -- | -- | 0.071 |
| **328** | 0 | 10.26 | -- | -- | 0.15 |
| **333** | 4 | 0.21 | -- | 0.068 | -- |
| **379** | 0 | -2.49 | -- | 0.046 | -- |

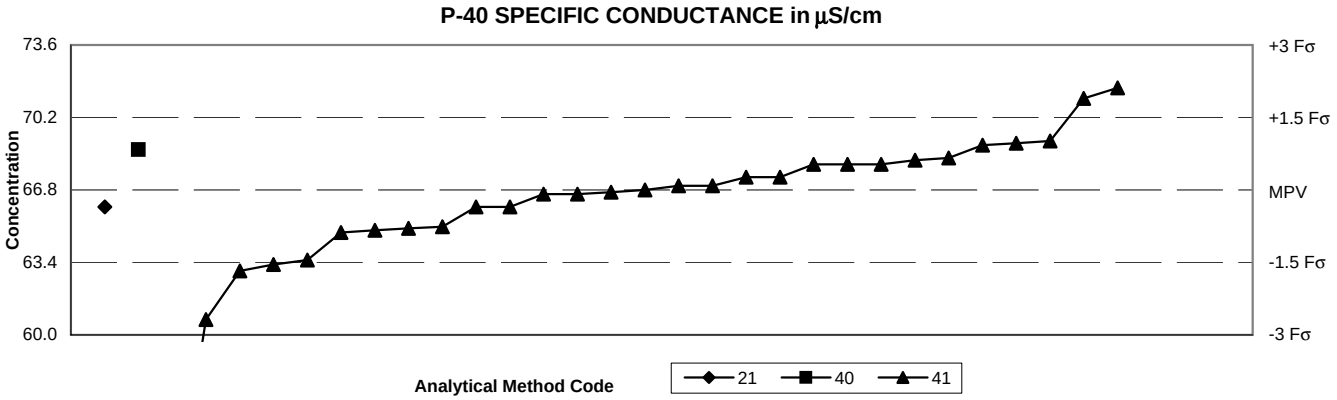
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | | | Statistics | |
|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 7 | 22 | 51 | Method Codes | | |
| n = | 1 | 1 | 24 | 0 | 1 | 00 Other | **MPV =** | **0.890 mg/L** |
| Minimum = | 4.02 | 0.477 | 0.1 | | 0.81 | 01 Atomic absorption: direct, air | F-pseudosigma = | 0.1297 |
| Maximum = | | | 3.25 | | | 07 Ion chromatography | n = | 27 |
| Median = | | | 0.895 | | | 22 Colorimetric | Uh = | 1.01 |
| F-pseudosigma = | | | 0.1149 | | | 51 Turbidimetric | Lh = | 0.830 |

| | | | Method Codes | | | | |
|---|---|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 0 | 1 | 7 | 22 | 51 |
| **1** | 4 | -0.09 | -- | -- | 0.878 | -- | -- |
| **2** | 4 | 0.25 | -- | -- | 0.923 | -- | -- |
| **5** | 0 | 2.31 | -- | -- | 1.19 | -- | -- |
| **8** | 0 | 3.16 | -- | -- | 1.3 | -- | -- |
| **23** | NR | -- | -- | -- | <5.0 | -- | -- |
| **25** | NR | -- | -- | -- | < 5.0 | -- | -- |
| **33** | 4 | -0.31 | -- | -- | 0.85 | -- | -- |
| **45** | 1 | 1.85 | -- | -- | 1.13 | -- | -- |
| **46** | NR | -- | -- | -- | -- | <15 | -- |
| **59** | 4 | -0.15 | -- | -- | 0.87 | -- | -- |
| **64** | 4 | 0.39 | -- | -- | 0.94 | -- | -- |
| **89** | 2 | 1.39 | -- | -- | 1.07 | -- | -- |
| **105** | 0 | 4.47 | -- | -- | 1.47 | -- | -- |
| **110** | 4 | -0.19 | -- | -- | 0.865 | -- | -- |
| **113** | 3 | -0.69 | -- | -- | 0.8 | -- | -- |
| **134** | 4 | -0.08 | -- | -- | 0.88 | -- | -- |
| **138** | 4 | -0.31 | -- | -- | 0.85 | -- | -- |
| **180** | 2 | -1.23 | -- | -- | 0.73 | -- | -- |
| **190** | 4 | 0.08 | -- | -- | 0.9 | -- | -- |
| **193** | 2 | -1.08 | -- | -- | 0.75 | -- | -- |
| **208** | NR | -- | -- | -- | <3 | -- | -- |
| **247** | NR | -- | -- | -- | <1 | -- | -- |
| **265** | 4 | 0.08 | -- | -- | 0.9 | -- | -- |
| **273** | 0 | -3.18 | -- | 0.477 | -- | -- | -- |
| **274** | 3 | -0.62 | -- | -- | -- | -- | 0.81 |
| **301** | 3 | -0.78 | -- | -- | 0.789 | -- | -- |
| **321** | 4 | 0.08 | -- | -- | 0.9 | -- | -- |
| **323** | 4 | 0.00 | -- | -- | 0.89 | -- | -- |
| **326** | 0 | 24.13 | 4.02 | -- | -- | -- | -- |
| **327** | NR | -- | -- | -- | -- | -- | <5 |
| **328** | 0 | 18.19 | -- | -- | 3.25 | -- | -- |
| **333** | 4 | 0.23 | -- | -- | 0.92 | -- | -- |
| **379** | NR | -- | -- | -- | -- | -- | <10 |
| **383** | 0 | -6.09 | -- | -- | 0.1 | -- | -- |

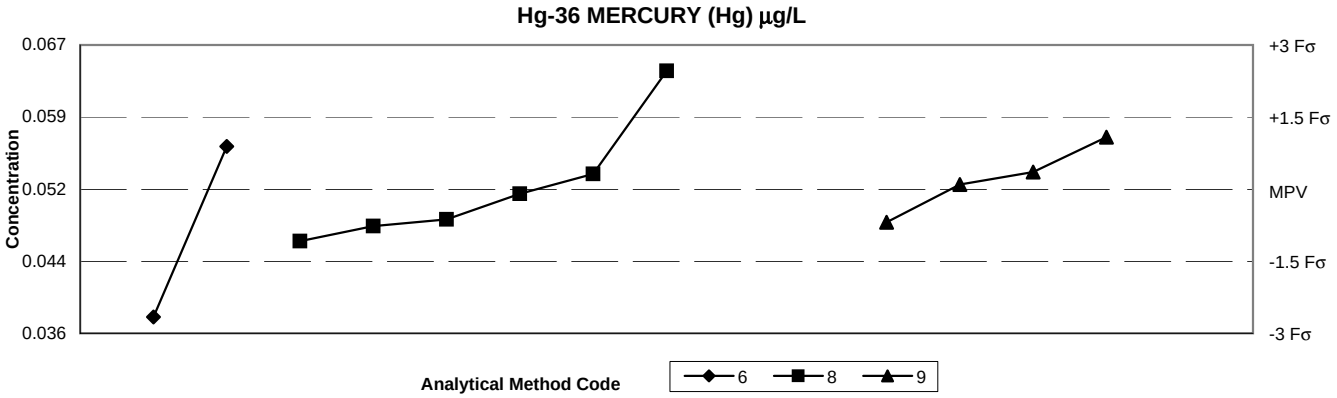
**Table 15.** ***Statistical summary of reported data for standard reference sample P-40 (low ionic-strength constituents) -- continued***




| SUMMARY | Methods | | | | Statistics | |
|---|---|---|---|---|---|---|
| | 21 | 40 | 41 | Method Codes | | |
| n = | 1 | 1 | 29 | 21 Titration: electrometric | **MPV =** | **66.8 uS/cm** |
| Minimum = | 66 | 68.7 | 50.8 | 40 Ion selective electrode | F-pseudosigma = | 2.27 |
| Maximum = | | | 71.6 | 41 Electrometric | Rating criterion = | 3.34 |
| Median = | | | 66.8 | | n = | 31 |
| F-pseudosigma = | | | 2.22 | | Uh = | 68.1 |
| | | | | | Lh = | 65.0 |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 21 | 40 | 41 |
| **1** | 4 | 0.00 | -- | -- | 66.8 |
| **2** | 3 | -0.99 | -- | -- | 63.5 |
| **5** | 3 | -0.54 | -- | -- | 65 |
| **8** | 4 | -0.24 | -- | -- | 66 |
| **23** | 2 | 1.44 | -- | -- | 71.6 |
| **33** | 3 | -0.52 | -- | -- | 65.07 |
| **38** | 4 | -0.06 | -- | -- | 66.6 |
| **45** | 3 | -0.60 | -- | -- | 64.8 |
| **46** | 4 | 0.45 | -- | -- | 68.3 |
| **59** | 4 | -0.03 | -- | -- | 66.7 |
| **64** | 3 | 0.69 | -- | -- | 69.1 |
| **86** | 4 | -0.24 | -- | -- | 66 |
| **89** | 0 | -4.79 | -- | -- | 50.8 |
| **105** | 4 | 0.06 | -- | -- | 67 |
| **110** | 2 | -1.05 | -- | -- | 63.3 |
| **113** | 4 | 0.18 | -- | -- | 67.4 |
| **134** | 4 | 0.36 | -- | -- | 68 |
| **138** | 4 | 0.18 | -- | -- | 67.4 |
| **180** | 2 | -1.14 | -- | -- | 63 |
| **190** | 4 | -0.24 | 66 | -- | -- |
| **193** | 3 | 0.63 | -- | -- | 68.9 |
| **247** | 4 | 0.36 | -- | -- | 68 |
| **273** | 4 | 0.36 | -- | -- | 68 |
| **274** | 3 | -0.57 | -- | -- | 64.9 |
| **277** | 1 | -1.83 | -- | -- | 60.7 |
| **321** | 4 | -0.06 | -- | -- | 66.6 |
| **323** | 4 | 0.06 | -- | -- | 67 |
| **327** | 2 | 1.29 | -- | -- | 71.1 |
| **328** | 3 | 0.66 | -- | -- | 69 |
| **333** | 4 | 0.42 | -- | -- | 68.2 |
| **379** | 3 | 0.57 | -- | 68.7 | -- |

**Table 16.** ***Statistical summary of reported data for standard reference sample HG-36 (mercury)***




| SUMMARY | Methods | | | | Statistics | | |
|---|---|---|---|---|---|---|---|
| | 6 | 8 | 9 | Method Codes | | | |
| n = | 2 | 6 | 4 | 06 Inductively coupled plasma / mass spectrometry | **MPV =** | **0.052** | **µg/L** |
| Minimum = | 0.038 | 0.046 | 0.048 | 08 Atomic absorption: cold vapor | F-pseudosigma = | 0.0051 | |
| Maximum = | 0.056 | 0.064 | 0.057 | 09 Atomic fluorescence | n = | 12 | |
| Median = | | 0.050 | | | Uh = | 0.055 | |
| F-pseudosigma = | | 0.0041 | | | Lh = | 0.048 | |

| | | | Method Codes | | |
|---|---|---|---|---|---|
| **Lab** | Rating | Z-value | 6 | 8 | 9 |
| **1** | 3 | -0.63 | -- | 0.048 | -- |
| **18** | 2 | -1.08 | -- | 0.046 | -- |
| **32** | 0 | -2.66 | 0.038 | -- | -- |
| **45** | 3 | 0.89 | 0.056 | -- | -- |
| **46** | 4 | 0.10 | -- | -- | 0.052 |
| **59** | 4 | 0.35 | -- | -- | 0.053 |
| **105** | NR | -- | -- | <0.2 | -- |
| **138** | 4 | -0.10 | -- | 0.051 | -- |
| **180** | 0 | 2.46 | -- | 0.064 | -- |
| **235** | 3 | -0.77 | -- | 0.048 | -- |
| **245** | 2 | 1.08 | -- | -- | 0.057 |
| **247** | NR | -- | -- | <0.2 | -- |
| **304** | 3 | -0.69 | -- | -- | 0.048 |
| **356** | 4 | 0.32 | -- | 0.053 | -- |

**Table 17.** ***Most probable values for constituents and properties in standard reference samples distributed in March 2003***

[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-173**

| Analyte = | Silver (Ag) | Aluminum (Al) | Arsenic (As) | Boron (B) | Barium (Ba) |
|---|---|---|---|---|---|
| MPV = | 1.14 µg/L | 71.0 µg/L | 2.67 µg/L | 158 µg/L | 42.2 µg/L |
| F-pseudosigma = | 0.104 | 5.34 | 0.267 | 11.8 | 1.95 (2.11) |
| n = | 34 | 45 | 42 | 31 | 48 |

| Analyte = | Beryllium (Be) | Calcium (Ca) | Cadmium (Cd) | Cobalt (Co) | Chromium (Cr) |
|---|---|---|---|---|---|
| MPV = | 2.00 µg/L | 34.8 mg/L | 1.26 µg/L | 1.26 µg/L | 4.88 µg/L |
| F-pseudosigma = | 0.137 | 0.96 (1.74) | 0.082 | 0.104 | 0.330 |
| n = | 40 | 56 | 50 | 31 | 44 |

| Analyte = | Copper (Cu) | Iron (Fe) | Potassium (K) | Lithium (Li) | Magnesium (Mg) |
|---|---|---|---|---|---|
| MPV = | 7.50 µg/L | 21.4 µg/L | 3.85 mg/L | 17.1 µg/L | 9.38 mg/L |
| F-pseudosigma = | 0.630 | 3.43 | 0.133 (0.192) | 1.56 | 0.297 (0.469) |
| n = | 47 | 39 | 53 | 26 | 56 |

| Analyte = | Manganese (Mn) | Molybdenum (Mo) | Sodium (Na) | Nickel (Ni) | Lead (Pb) |
|---|---|---|---|---|---|
| MPV = | 495 µg/L | 7.22 µg/L | 36.5 mg/L | 5.38 µg/L | 4.59 µg/L |
| F-pseudosigma = | 24.7 (24.8) | 0.434 | 0.96 (1.83) | 0.445 | 0.385 |
| n = | 53 | 36 | 54 | 42 | 50 |

| Analyte = | Antimony (Sb) | Selenium (Se) | Silica ($SiO_2$) | Strontium (Sr) | Thallium (Tl) |
|---|---|---|---|---|---|
| MPV = | 5.20 µg/L | 2.47 µg/L | 11.1 mg/L | 279 µg/L | 5.94 µg/L |
| F-pseudosigma = | 0.356 | 0.452 | 0.41 (0.56) | 8.2 (14.0) | 0.326 |
| n = | 33 | 35 | 35 | 41 | 35 |

| Analyte = | Uranium (U) | Vanadium (V) | Zinc (Zn) |
|---|---|---|---|
| MPV = | 1.92 µg/L | 4.31 µg/L | 348 µg/L |
| F-pseudosigma = | 0.087 (0.096) | 0.245 | 19.3 |
| n = | 18 | 32 | 54 |

**M-166**

| Analyte = | Alkalinity | Boron (B) | Calcium (Ca) | Chloride (Cl) | Fluoride (F) |
|---|---|---|---|---|---|
| MPV = | 81.0 mg/L | 150 µg/L | 31.3 mg/L | 36.4 mg/L | 0.690 mg/L |
| F-pseudosigma = | 2.74 (4.05) | 7.0 (7.5) | 1.26 (1.57) | 1.33 (1.82) | 0.0597 |
| n = | 63 | 32 | 63 | 73 | 51 |

| Analyte = | Potassium (K) | Magnesium (Mg) | Sodium (Na) | pH | Residue on Evaporation |
|---|---|---|---|---|---|
| MPV = | 4.37 mg/L | 18.5 mg/L | 25.1 mg/L | 9.50 | 260 mg/L |
| F-pseudosigma = | 0.185 (0.219) | 0.67 (0.93) | 1.04 (1.26) | 0.185 (0.475) | 14.8 |
| n = | 59 | 62 | 61 | 63 | 47 |

| Analyte = | Silica ($SiO_2$) | Sulfate ($SO_4$) | Specific Conductance | Strontium (Sr) | Total Phosphorus as P |
|---|---|---|---|---|---|
| MPV = | 11.7 mg/L | 56.2 mg/L | 432 µS/cm | 249 µg/L | 0.056 mg/L |
| F-pseudosigma = | 0.52 (0.59) | 2.05 (2.81) | 11.1 (21.6) | 7.4 (12.5) | 0.0089 |
| n = | 45 | 68 | 65 | 36 | 42 |

| Analyte = | Vanadium (V) |
|---|---|
| MPV = | 17.2 µg/L |
| F-pseudosigma = | 1.04 |
| n = | 30 |

**Table 17.** ***Most probable values for constituents and properties in standard reference samples distributed in March 2003 -- 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.]

**N-77**

| Analyte = | Ammonia as N ($NH_3$-N) | Ammonia + Organic N as N | Nitrate as N ($NO_3$-N) | Total Phosphorus as P | Orthophosphate as P ($PO_4$-P) |
|---|---|---|---|---|---|
| MPV = | 0.073 mg/L | 0.105 mg/L | 0.067 mg/L | 0.065 mg/L | 0.060 mg/L |
| F-pseudosigma = | 0.0074 | 0.0419 | 0.0059 | 0.0048 | 0.0038 |
| n = | 58 | 39 | 57 | 52 | 52 |

**N-78**

| Analyte = | Ammonia as N ($NH_3$-N) | Ammonia + Organic N as N | Nitrate as N ($NO_3$-N) | Total Phosphorus as P | Orthophosphate as P ($PO_4$-P) |
|---|---|---|---|---|---|
| MPV = | 0.789 mg/L | 0.939 mg/L | 0.660 mg/L | 0.640 mg/L | 0.632 mg/L |
| F-pseudosigma = | 0.0456 | 0.1038 | 0.0310 (0.0330) | 0.0267 (0.0320) | 0.0200 (0.0316) |
| n = | 55 | 41 | 40 | 50 | 50 |

**P-40**

| Analyte = | Acidity | Calcium (Ca) | Chloride (Cl) | Fluoride (F) | Potassium (K) |
|---|---|---|---|---|---|
| MPV = | inadequate data | 0.728 mg/L | 15.2 mg/L | 0.127 mg/L | 0.384 mg/L |
| F-pseudosigma = | | 0.0437 | 0.52 (0.76) | 0.0252 | 0.0289 |
| n = | | 30 | 33 | 22 | 27 |

| Analyte = | Magnesium (Mg) | Sodium (Na) | pH | Orthophosphate as P ($PO_4$-P) | Sulfate ($SO_4$) |
|---|---|---|---|---|---|
| MPV = | 1.62 mg/L | 5.42 mg/L | 4.48 | 0.066 mg/L | 0.890 mg/L |
| F-pseudosigma = | 0.093 | 0.297 | 0.096 (0.224) | 0.0082 | 0.1297 |
| n = | 32 | 33 | 30 | 25 | 27 |

| Analyte = | Specific Conductance |
|---|---|
| MPV = | 66.8 µS/cm |
| F-pseudosigma = | 2.27 (3.34) |
| n = | 31 |

**HG-36**

| Analyte = | Mercury (Hg) |
|---|---|
| MPV = | 0.052 µg/L |
| F-pseudosigma = | 0.0051 |
| n = | 12 |