

Water Sciences Laboratory

Analyte/Protocol Price List

2024



Nebraska Water Center

Daugherty Water for Food Global Institute

Elemental MS :: Solids

Nebraska Water Center, a part of the
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Protocol	Analyte	Reporting Limit	Protocol Cost	NU Cost (20% discount)
<p>Acid-Leachable Elements using ICP-MS (Solids)</p> <p>Protocol ID: 19_01_02</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>*Protocol cost is per analyte, 20% discount for >5 analytes</p> <p>&Add digestion charge of \$9.40/sample</p> </div> <p>Sample Container: 125 mL wide mouth amber glass bottle Sample Size: 50 gm Preservation: Frozen Holding Time: 60 Days Estimated Turnaround Time: 6-8 Weeks</p> <p>References: (2007), "EPA 6020A Inductively Coupled Plasma - Mass Spectrometry". "EPA 3051 Microwave Assisted Acid Digestion of Sediments, Sludges, Soils, and Oils ",</p>	<p>Aluminum</p> <p>Antimony</p> <p>Arsenic</p> <p>Barium</p> <p>Beryllium</p> <p>Bismuth</p> <p>Boron</p> <p>Cadmium</p> <p>Calcium</p> <p>Chromium</p> <p>Cobalt</p> <p>Copper</p> <p>Iron</p> <p>Lanthanum</p> <p>Lead</p> <p>Lithium</p> <p>Magnesium</p> <p>Manganese</p> <p>Uranium</p> <p>Nickel</p> <p>Phosphorus</p> <p>Platinum</p> <p>Selenium</p> <p>Silver</p> <p>Strontium</p> <p>Thallium</p> <p>Tungsten</p> <p>Uranium</p> <p>Vanadium</p>	<p>Pending</p> <p>0.01 µg/g</p> <p>0.001 µg/g</p> <p>0.01 µg/g</p> <p>Pending</p> <p>Pending</p> <p>Pending</p> <p>0.003 µg/g</p> <p>Pending</p> <p>0.007 µg/g</p> <p>0.02 µg/g</p> <p>0.003 µg/g</p> <p>0.03 µg/g</p> <p>0.001 µg/g</p> <p>0.005 µg/g</p> <p>Pending</p> <p>Pending</p> <p>0.001 µg/g</p> <p>Pending</p> <p>0.002 µg/g</p> <p>0.02 µg/g</p> <p>Pending</p> <p>0.001 µg/g</p> <p>0.001 µg/g</p> <p>Pending</p> <p>Pending</p> <p>Pending</p> <p>0.001 µg/g</p> <p>Pending</p>	<p>\$18.90*&</p>	<p>\$15.12*&</p>

Turnaround times are subject to existing sample queues Reporting Limits are subject to verification

Protocol	Analyte	Reporting Limit	Protocol Cost	NU Cost (20% discount)
	Zinc	0.02 µg/g		
<p>Arsenic Speciation (Solids) Protocol ID: 19_07_02</p> <p>Sample Container: 125 mL wide mouth amber glass bottle Sample Size: 50 gm Preservation: Frozen Holding Time: 28 Days Estimated Turnaround Time: 6-8 Weeks</p> <p>References: Ammann, A. A. (2002), "Speciation of heavy metals in environmental water by ion chromatography coupled to ICP-MS", <i>Anal. Bioanal. Chem.</i> 372, 448-452.</p> <p>Barrero Moreno, J. M.; Garcia Alonso, J. I.; Arbore, P.; Nicolaou, G.; Koch, L. (1996), "Characterization of Spent Nuclear Fuels by Ion Chromatography-Inductively Coupled Plasma Mass Spectrometry", <i>J. Anal. At. Spectrom.</i> 11, 929-935.</p>	<p>Arsenic (III) Arsenic (V)</p>	<p>0.1 ng/g 0.07 ng/g</p>	<p>\$105.00</p>	<p>\$84.00</p>
<p>Acid-Leachable Mercury using ICP-MS (Solids) Protocol ID: 19_09_02</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>&Add digestion charge of \$9.40/sample</p> </div> <p>Sample Container: 125 mL wide mouth amber glass bottle Sample Size: 50 gm Preservation: Frozen Holding Time: 60 Days Estimated Turnaround Time: 6-8 Weeks</p> <p>Reference: Kulomaki, S.; Permaki, S.; Vaisanen, A. (2020), "Addition of thiourea and hydrochloric acid: Accurate nanogram level analysis of mercury in humic-rich natural waters by inductively coupled plasma mass spectrometry", <i>Talanta</i> 218, 121125.</p>	<p>Mercury</p>	<p>0.002 µg/g</p>	<p>\$18.90&</p>	<p>\$15.12&</p>

Turnaround times are subject to existing sample queues Reporting Limits are subject to verification

Protocol	Analyte	Reporting Limit	Protocol Cost	NU Cost (20% discount)
<p>Acid-Leachable Mercury Species using IC-ICP-MS (Solids) Protocol ID: 19_10_02</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>&Add digestion charge of \$9.40/sample</p> </div> <p>Sample Container: Pending Sample Size: 10 g Preservation: Frozen Holding Time: 60 Days Estimated Turnaround Time: 2-3 Weeks</p> <p>References: Amde, M.; Yin, Y.; Zhang, D.; Liu, J. (2016), "Methods and recent advances in speciation analysis of mercury chemical species in environmental samples: a review", <i>Chem. Spec. & Bioavailability</i> 28(1-4), 51-65.</p> <p>Chen, D.; Jing, M.; Wang, X. (2005), "Determination of Methyl Mercury in Water and Soil by HPLC-ICP-MS", <i>Agilent Application Note</i></p>	<p>Ethylmercury Inorganic Mercury Methylmercury</p>	<p>0.001 µg/g 0.002 µg/g 0.001 µg/g</p>	<p>\$100.00&</p>	<p>\$80.00&</p>
<p>Total Elements using Tetrofluoroboric Acid via ICP-MS (Solids) (Per Element) Protocol ID: 19_11_02</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>*Protocol cost is per analyte, 20% discount for >5 analytes</p> <p>&Add digestion charge of \$9.40/sample</p> </div> <p>Sample Container: 125 mL wide mouth amber glass bottle Sample Size: 5 gm Preservation: Frozen Holding Time: 60 Days Estimated Turnaround Time: 6-8 Weeks</p> <p>References: Zimmermann, T.; Von der Au, M.; Reese, A.; Klein, O.; Hildebrandt, L.; Profrock, D. (2020), "Substituting HF by HBF4 - an optimized digestion method for multi-elemental sediment analysis via ICP-MS/MS", <i>Anal. Methods</i> 12(30), 3765-3866.</p>	<p>Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lanthanum Lead Lithium Magnesium Manganese Mercury Uranium</p>	<p>0.1 µg/g 0.002 µg/g 0.03 µg/g 0.006 µg/g 0.01 µg/g 5 µg/g 0.003 µg/g 0.10 µg/g 0.001 µg/g 0.001 µg/g 0.001 µg/g 0.06 µg/g Pending 0.003 µg/g 0.01 µg/g 0.04 µg/g 0.002 µg/g Pending 0.002 µg/g</p>	<p>\$18.90*&</p>	<p>\$15.12*&</p>

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Protocol	Analyte	Reporting Limit	Protocol Cost	NU Cost (20% discount)
<p>(2007), "EPA 6020A Inductively Coupled Plasma - Mass Spectrometry".</p> <p>"Method developed internally at WSL",</p>	<p>Nickel Phosphorus Platinum Potassium Selenium Silver Sodium Strontium Thallium Tin Tungsten Uranium Vanadium Zinc</p>	<p>0.001 µg/g Pending Pending 0.09 µg/g 0.02 µg/g 0.02 µg/g 0.9 µg/g 0.01 µg/g 0.002 µg/g 0.003 µg/g Pending Pending 0.001 µg/g 0.003 µg/g</p>		
<p>Acid-Leachable Elements using ICP-OES (Solids)</p> <p>Protocol ID: 21_01_02</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> <p>&Add digestion charge of \$9.40/sample</p> </div> <p>Sample Container: 125 mL wide mouth amber glass bottle Sample Size: 50 gm Preservation: Frozen Holding Time: 28 Days Estimated Turnaround Time: 6-8 Weeks</p> <p>Reference: (2018), "EPA 6010D Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-OES)".</p>	<p>Aluminium Calcium Copper Iron Magnesium Manganese Potassium Sodium</p>	<p>0.01 µg/g 0.002 µg/g 0.01 µg/g 0.01 µg/g 0.002 µg/g 0.01 µg/g 0.002 µg/g 0.002 µg/g</p>	<p>\$30.00&</p>	<p>\$24.00&</p>