

**Methods Used By ACZ Laboratories, Inc. For Analysis of  
NEON Sediment Chemical and Physical Properties (DP1.20194.001)**

Analyte(s)	Link to Lab SOP in NEON Document Library	Reference Method(s)	Reference Method(s) Full Citation
Alkalinity: (CaCO <sub>3</sub> , HCO <sub>3</sub> , CO <sub>3</sub> , OH)  Conductivity  pH	<a href="#">ACZ SOP Sat Paste Extraction v5</a>  <a href="#">ACZ SOP Alk,pH,EC Man-TechAutoTit v9</a>	EPA 600/2-78-054 section 3.2.2  APHA SM2510B  APHA SM2320B	U.S. EPA (March, 1978). Field and laboratory methods applicable to overburden and minesoils (pp. 45-47). United States Environmental Protection Agency. EPA 600/2-78-054.  APHA (2011). Standard methods for the examination of water and wastewater: Method 2510 B. Standard Methods Online  APHA (2011). Standard methods for the examination of water and wastewater: Method 2320 B. American Public Health Association. Standard Methods Online.
Carbon: (TC, TOC)	<a href="#">ACZ SOP TOC&amp;TIC v5</a>	ASA No.9 29-2.2.4	D.W. Nelson & L.E. Sommers, (1982). Total carbon, organic carbon, and organic matter. In A.L. Page (Ed.), Methods of soil analysis part 2 chemical and microbiological properties, 2nd Edition (pp. 542-560). Madison, WI: American Society of Agronomy, Inc.
Grain Size, Texture	<a href="#">ACZ SOP PartSizeAnal WetDrySieve v4</a>  <a href="#">ACZ SOP TexAnalSoils SpoilsTailngs v4</a>	ASA No. 9 Pt. 1 Section 15	G.W. Gee & J.W. Bauder, (1986). Particle size analysis. In Arnold Klute (Ed.), Methods of soil analysis part 1 physical and mineralogical methods, 2nd Edition. Madison, WI: American Society of Agronomy, Inc.
Mercury: (Hg)	<a href="#">ACZ SOP MercuryBy DirectCombustion v6</a>	EPA M7473	Method 7473, Revision 0, February 2007, Final Update IV to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846

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<p>Metals: (Al, Sb, Ba, Be, Cd, Ca, Cr, Cu, Fe, Pb, Mg, Mn, Mo, Ni, P, K, Na, Sn, Ti, Zn)</p>	<p align="center"> <a href="#">ACZ SOP ICP metals 200.7-6010 v11</a>   <a href="#">ACZ SOP ICPMS metals 200.8-6020 v15</a> </p>	<p align="center">           EPA 3050B             EPA200.7/6010B /6010D             EPA200.8/6020 /6020B         </p>	<p>Method 3050B, Revision 2, December 1996, Final Update III to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846.</p> <p>Method 6010B, Revision 2, December 1996, Final Update III to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846.</p> <p>Method 6010D, Revision 4, July 2014, Final Update V to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846.</p> <p>Method 6020, Revision 0, September 1994, Final Update II to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846.</p> <p>Method 6020B, Revision 2, July 2014, Final Update V to the Third Edition of the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846.</p>

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Ammonia as N: (NH <sub>4</sub> - N)	<a href="#">ACZ SOP Ammonia LachatPrep Inst v6</a>	EPA M350.1	U.S. EPA (August, 1993). Methods for the determination of inorganic substances in environmental samples: Method 350.1. United States Environmental Protection Agency. EPA/600/R-93/100.
Nitrate/Nitrite as N: (NO <sub>3</sub> +NO <sub>2</sub> - N)  Nitrite as N: (NO <sub>2</sub> - N)  Nitrate as N: (NO <sub>3</sub> - N)	<a href="#">ACZ SOP NO3-NO2 Lachat v3</a>	EPA M535.2	U.S. EPA (August, 1993). Methods for the determination of inorganic substances in environmental samples: Method 353.2. United States Environmental Protection Agency. EPA/600/R-93/100.
Total Kjeldahl Nitrogen: (TN)	<a href="#">ACZ SOP Total Kjeldahl N&amp;P v6</a>	EPA M351.2	U.S. EPA (August, 1993). Methods for the determination of inorganic substances in environmental samples: Method 351.2. United States Environmental Protection Agency. EPA/600/R-93/100.