

Analytical Charges for the Soil Analysis Laboratory at the Smithsonian Tropical Research Institute (2008)¹

Analyte	Method	Base charge ²	Per sample
Water			
Ammonium	Automated colorimetry	\$20.00	\$4.00
Dissolved organic carbon	TOC analyzer	\$20.00	\$8.00
Nitrate	Automated colorimetry	\$20.00	\$4.00
Phosphate	Automated colorimetry	\$20.00	\$4.00
Total element analysis	ICP–OES	\$30.00	\$10.00 ³
Total nitrogen	Persulfate digestion	\$25.00	\$10.00
Total phosphorus	Persulfate digestion	\$25.00	\$10.00
Soil Extracts⁴			
Ammonium (KCl)	Automated colorimetry	\$25.00	\$5.00
Dissolved organic carbon (K ₂ SO ₄)	TOC analyzer	\$25.00	\$10.00
Nitrate (KCl)	Automated colorimetry	\$25.00	\$5.00
Phosphate (Mehlich, Bray, Olsen)	Automated colorimetry	\$25.00	\$5.00
Total element analysis (Mehlich)	ICP–OES	\$35.00	\$12.00 ³
Total nitrogen (KCl, K ₂ SO ₄)	Persulfate digestion	\$30.00	\$11.00
Total phosphorus (Olsen, NaOH)	Persulfate digestion	\$30.00	\$11.00
Soil and Plant Tissue⁵			
Total carbon and nitrogen	Dry combustion	\$30.00	\$10.00
Total element analysis	Digestion and ICP–OES	\$40.00	\$20.00 ³
Total nitrogen	Kjeldahl digestion	\$35.00	\$15.00
Total phosphorus	Kjeldahl digestion	\$35.00	\$15.00
Total phosphorus	Acid digestion	\$30.00	\$12.00
Total organic phosphorus	Ignition	\$30.00	\$15.00
Miscellaneous			
Soil pH	Water or CaCl ₂	\$20.00	\$5.00
Grinding soil or plant tissue	Ball mill	\$20.00	\$5.00
Organic matter	Loss on ignition	\$20.00	\$5.00

¹ Charges are for analysis only; email for a quote on extractions or preparation of plant material/soil.

² Base charge covers the cost of standards, check samples, carrier solutions, etc.

³ Add \$1.00 per sample for each extra element.

⁴ Analysis of the extract only (*i.e.*, does not include extraction and filtration).

⁵ Analysis of dried and ground material (*i.e.*, does not include sample preparation).