

# Supporting Environmental Research

State-of-the-art instrumentation, specialized preparation equipment, and a skilled professional staff provide high quality analyses for environmental research needs.



**Other methods are available and new methods are always under development!**

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LAKE SUPERIOR  
STATE UNIVERSITY

Located on the shores of Lake Superior in Michigan's Eastern Upper Peninsula, the Environmental Analysis Laboratory is part of the Department of Chemistry and Environmental Science at Lake Superior State University.

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## Lake Superior State University ENVIRONMENTAL ANALYSIS LABORATORY



# Analytical Services for Environmental Research

# Technical and Analytical Support for Environmental Research

- LSSU laboratory skilled professional staff is committed to developing cost effective analytical methods making environmental research affordable.
- We play an integral role in environmental projects that are driven by private and local community environmental organizations, providing expertise in environmental science and health issues.
- Our state-of-the-art instrumentation provides chemical and biological analyses to local, state, and federal agencies to ensure that regional monitoring and research needs are met.



## Environmental Analysis Laboratory 2010 Price List

- *Discounts apply when more than 50 samples are submitted for each method*
- *Additional discounts available for client prepared samples*
- *Sample containers provided at no additional cost*

## Trace Metals Analysis

### Instrumentation includes:

- Agilent 7500a ICP-MS housed in a class100 clean room
- CEM Mars microwave digester

Analysis	Sample/size	Price
Metals	Water/0.1L	120.00
Metals	Solids/1.0g	150.00
Metals	Tissue/2.0g	160.00
Total Hg ... call for quote		
Other elements ... call for quote		
<b>Note:</b> Metals analyzed include Be, V, Cr, Mn, Co, Ni, Cu, Zn, As, Se, Mo, Ag, Cd, Sb, Ba, Pb, and Tl.		

## Standard Methods

### Instrumentation includes:

- Dionex DX500 Ion Chromatograph
- Agilent 8453 UV-Vis Scanning Spectrophotometer

Analysis	Sample/size	Price
Nutrient Anions	Water/0.1L	25.00
Dissolved Oxygen, pH, Alkalinity, & Conductivity	Water/0.2L	25.00
Chlorophylls	Water/1.0L	35.00
Total Kjeldahl Nitrogen	Water/0.1L	25.00
Soluble Reactive Phosphorus	Water/0.2L	40.00
Total Phosphorus	Water/0.2L	25.00
Total Phosphorus	Solid/10.0g	35.00
Total Dissolved Solids	Water/0.2L	12.00
Total Suspended Solids	Water/0.2L	12.00
Sulfide	Water/0.1L	53.00
Total coliform/E coli	Water/0.1L	18.00
Hardness	Water/0.1L	12.00

## Environmental Analysis

### Instrumentation includes:

- Agilent 6890N Series/5973 Series GC/MS
- Hewlett-Packard 5890 Series II/5971 Series GC/MC
- Archon Purge and Trap & Teledyne Tekmar Velocity XPT Purge and Trap Sample Concentrator
- Waters 2695 HPLC PDA/fluorescence
- Molecular Devices SpectraMax M2
- VirTis Benchtop K Lyophilizer

### Gas chromatography/mass spectrometry (GC/MS)

Analysis	Sample/size	Price
Azoxystrobin	Water/1L	80.00
Clopyralid	Water/1L	150.00
Iprodione	Water/1L	150.00
Chlorothalonil/chlorpyrifos	Water/1L	80.00
MCPA	Water/1L	140.00
Other compounds ... call for quote		
<b>Note:</b> GC/MS methods can be applied to soil/solids for an additional \$50.00 preparation fee.		

### High performance liquid chromatography/photo diode array (HPLC/PDA)

Analysis	Sample/size	Price
Extra-cellular priority algal toxins	Water/0.5L	80.00
Total priority algal toxins	Water/0.5L	100.00
<b>Note:</b> Priority toxins include Anatoxin-a, Cylindrospermopsin, and Microcystin RR, LR, LA, YR, and LF.		

### Enzyme linked immunosorbant assay (ELISA)

Analysis	Sample/size	Price
Microcystin	Water/0.01L	65.00
Cylindrospermopsin	Water/0.01L	75.00
Saxatoxin	Water/0.01L	75.00

### Algal identification/enumeration

Analysis	Sample/size	Price
Blue-green to the genus level	Water/0.1L	75.00