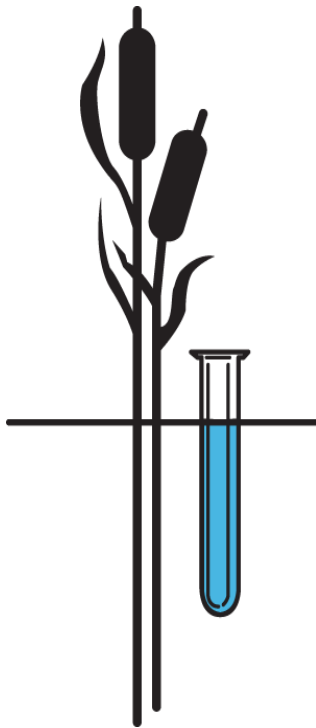


# Aquatic Consulting & Testing, Inc.

## Statement of Qualifications and Fee Schedule



### **Aquatic Consulting & Testing, Inc**

1525 W. University Drive, Suite 106  
Tempe, Arizona 85281

Telephone: (480) 921-8044

Fax: (480) 921-0049

E-mail: [lab@aquaticconsulting.com](mailto:lab@aquaticconsulting.com)

Web address: [www.aquaticconsulting.com](http://www.aquaticconsulting.com)



## **HISTORY**

Aquatic Consulting & Testing, Inc. (AC&T) is a small, woman-owned business incorporated in 1988. Start-up services included environmental microbiological and limited inorganic analysis, and consulting services to municipalities and engineering firms.

Expansion by acquiring an independent environmental laboratory in 1994 allowed AC&T to provide expertise in full-service inorganic analysis, as well as aquatic biology and limnology. The office has been located in the Tempe Work Space, conveniently located between ASU and Phoenix Sky Harbor Airport, throughout its course of operation.

## **ABOUT US**

The staff is composed of 12 biologists, chemists and environmental scientists, and 2 support personnel. The owners, Elizabeth (Beth) Atkinson and Frederick (Rick) Amalfi, Ph.D., have been involved in day-to-day operation of AC&T since its inception.

AC&T is certified by the Arizona Dept. of Health Services (ADHS), Office of Laboratory Licensure, for analysis of multiple parameters. PMD (Department of Agriculture - Pest Management Division)-licensed aquatic pesticide applicators and a NALMS-certified lake manager are on staff for surface water chemical applications and management.



**AQUATIC CONSULTING & TESTING, INC.  
STATEMENT OF QUALIFICATIONS**

**Biological and Analytical Chemistry Services**

**Laboratory Location:**

The office and laboratories are located just west of the University and Priest intersection in Tempe, Arizona:

1525 W. University Drive, Suite 106  
Tempe, Arizona 85281  
Telephone: 480-921-8044  
Fax: 480-921-0049  
Email: [lab@aquaticconsulting.com](mailto:lab@aquaticconsulting.com)  
Website: [www.aquaticconsulting.com](http://www.aquaticconsulting.com)

**Laboratory Turnaround Time**

15-day turnaround time is generally offered. RUSH turnaround analysis can be provided in addition to weekend and holiday rates. The following surcharges apply:

<b><u>Requirement</u></b>	<b><u>Charge</u></b>
24 Hour	3X base rate
48-72 Hour	2X base rate
3-5 Day	1.5X base rate
5-10 Day	Standard, available based on laboratory workload
Weekend/Holiday*	3X base rate

\* Samples requiring immediate attention (short holding times or special lab preparation) and received after 3:00pm on a Friday may be subject to Weekend/Holiday surcharge. Contact the lab if sample must be submitted on Friday afternoon.

**Supplies and Volume Discounts**

Clients are provided with clean, pre-preserved sample bottles, coolers, blue ice and chain of custody. Volume discounts may be applicable.

**Invoices & Payment**

Payment is due thirty (30) days from invoice date. A finance charge of 1% per month may be added to any balance unpaid after the 30 days.



## Description of Services:

### 1.0 General Statement

AC&T has been providing aquatic consulting and analytical testing for over two decades. Collectively, staff members have over a hundred years of environmental consulting and analytical testing experience. Services provided include:

- ❖ Environmental Water Quality Consulting
- ❖ Lake, Pond and Reservoir Management
- ❖ Field Sampling
- ❖ Environmental Data Evaluation & Validation
- ❖ Vector Monitoring and Management
- ❖ Biological Identification
- ❖ Biotoxicity Assays
- ❖ WET Testing
- ❖ Environmental Analysis

### 2.0 Environmental Water Quality Consulting

AC&T performs analytical testing for water quality compliance programs such as industrial pretreatment permits, NPDES/AZPDES permits, Aquifer Protection permits, and source water quality monitoring for drinking water. Assistance is available for coordination of monitoring programs, completion of required permit applications, monitoring reports, and corrective actions for compliance with regulations. Certified water and wastewater operators are available for assistance with domestic water treatment problems. On-site operation and maintenance of in-line treatment systems or on site-laboratories are also available.

- ❖ Safe Drinking Water Act
  - Compliance sampling, testing, reporting
- ❖ Clean Water Act NPDES/ AZPDES
  - Regulatory assistance
  - Stormwater monitoring and compliance reporting
  - Field sampling
  - Analytical testing
- ❖ Pretreatment Discharge Compliance
  - Regulatory assistance
  - Field sampling
  - Analytical testing and reporting
- ❖ Municipal Treatment
  - Process consulting
  - Microbiology
  - AZPDES/NPDES compliance
  - Effluent water quality monitoring



### 3.0 Lake and Reservoir Management

Vice-President and co-owner, Dr. Frederick A. Amalfi, developed his doctoral thesis on lakes in Arizona, and has provided consulting services to many city, county, state and federal agencies with regard to lake management and reservoir water quality management. Dr. Amalfi has also consulted internationally on large reservoir management, most notably at Lake Baikal, in Siberia.

Consulting services provided in our surface water management include:

- ❖ Regulatory Compliance
  - Aquifer protection
  - Stormwater runoff
  - Fish consumption and full body contact water quality compliance
  - Compliance sampling, testing and reporting
  
- ❖ Insect, Algae and Aquatic Weed Management
  - Certified NALMS & AZ DPM (Pest Management Division)
  - Morphometric measurements
  - Chlorophyll a,b,c / pheophytin
  - Management plans
  
- ❖ Fisheries Management
  - Regulatory assistance
  - Analytical testing and reporting
  
- ❖ Water Quality Measurement
  - Temperature / oxygen Profiles
  - Trophic status
  - Siltation rates
  - Nutrient budgets
  - Water quality analyses
  - Reclaimed water feasibility
  - Microbiology



## 4.0 Field Sampling

Field sampling and analytical testing supports most of our consulting services:

Discrete sampling

- ❖ 24 Hour flow weighted composite sampling
- ❖ Stormwater
- ❖ Groundwater
- ❖ Surface water
- ❖ Source/drinking water
- ❖ Sediment
- ❖ Soil
- ❖ Hazardous waste

## 5.0 Environmental Data Evaluation and Validation

Our staff has decades of direct experience analyzing, reviewing, and reporting environmental analytical data. Full service validation, reporting, recommendations, and professional expert witness testimony are offered.

## 6.0 Vector Monitoring and Management

Organisms of concern in Arizona include midge flies and mosquitoes. AC&T conducts ongoing collection and monitoring of adult and larval mosquitoes and midge flies for our clients, and in cooperation with Maricopa County Health Department (MCHD) and the Arizona Department of Health Services (ADHS) provides a warning system for any vector issues arising from wetland vegetation and water quality. Our resident limnologists and entomologists provide aquatic insect monitoring and mitigation for aesthetic, quality of life, and human health protection. Although most species of midge flies do not bite, they tend to swarm in the early evening, interfering with human recreational activities. Mosquitoes, on the other hand, can be mild to aggressive biters, causing minor skin irritations to severe diseases in humans and domesticated animals.

AC&T provides live trapping of adult mosquitoes using carbon-dioxide traps. These traps, consisting of carbon dioxide and light sources, electric-operated intake fan, and capture net, are placed in the field during the late afternoon. The traps are picked up in the morning and the adult mosquitoes are quick-frozen for subsequent enumeration and identification. Identification is important to assess the origin of the mosquitoes and relative risk of vector-borne disease in the trap area. Counts are necessary for estimating population changes and efficacy of control measures. Manual dipping, counting, and species identification of mosquito larvae also helps identify breeding sites. AC&T can also monitor for presence of West Nile Virus (WNV) and Dengue Virus (DENV) in collected mosquitoes.

Midge flies are collected in the evening using New Jersey Light Traps. The traps are similar to those used for mosquitoes, but depend on a much stronger light source and collection fan. Remote operated dredges collect larval midges. Larvae most often live in organically rich sediments of irrigation channels or lakes and ponds. The larvae are separated from the mud by floatation and densities are determined per square meter of lake or channel bottom. Management strategies usually involve

biologically limiting the number of larvae in the sediment, and water quality management to reduce production of organic matter in the water. AC&T provides integrated pest management plans for controlling undesirable aquatic organisms.

Case-specific management strategies are developed which incorporate public education, habitat manipulation, biological controls and chemical treatment. PMD-licensed and certified aquatic pesticide applicators are on staff for any required chemical treatment.

## **7.0 Biological Identification**

Staff biologists, entomologists, and environmental scientists can identify the species necessary for formulation of management plans. We can characterize the algae, submerged and emergent aquatic plants, zooplankton, insects and other invertebrates that comprise the biotic community.

## **8.0 Biototoxicity Assays**

AC&T can provide several biological monitoring and evaluation techniques for investigative and effluent discharge compliance requirements. Algal growth potential (AGPT) or algal biostimulation tests may be performed to determine the nutrient status of surface water and its response to changes in environmental conditions. Short term static or renewal, acute and chronic toxicity tests using EPA protocols are utilized for identification of potentially biohazardous discharge or waste load allocation for receiving waters. Sediment toxicity tests are available for assessing potential adverse effects of accumulated or solids-related contaminants on benthic organisms. Changes in algal composition and abundance, aquatic insect composition, and periphyton composition are determined to assess suspected stream and river pollution using USEPA Rapid Bioassessment Protocol (RPB).

## **9.0 WET Testing**

AC&T is certified by the Arizona Dept. of Health Services (ADHS), Office of Laboratory Licensure, for analysis of multiple parameters including freshwater acute and chronic toxicity tests.

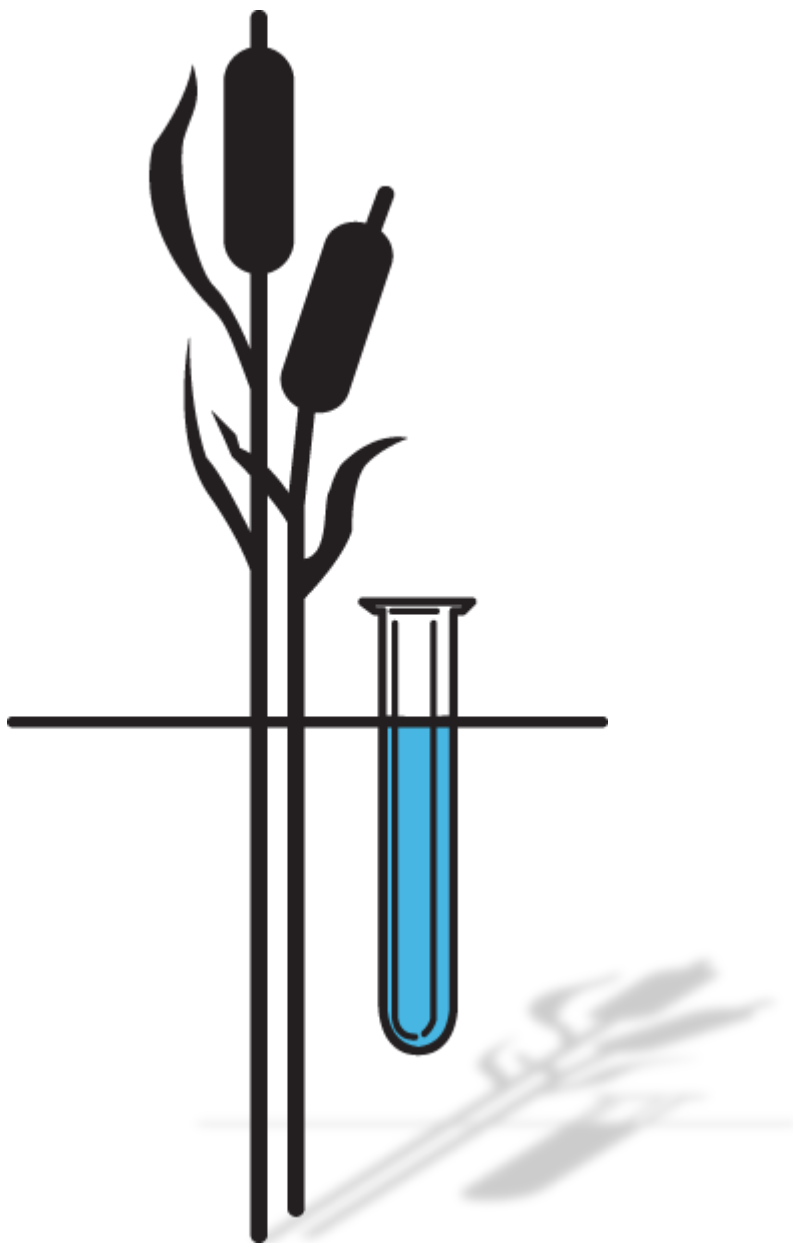
The WET testing section of our laboratory occupies over 1200 square feet and is physically separated from other testing areas to eliminate cross contamination. The WET laboratory is environmentally controlled and equipped with dedicated growth chambers and instruments. Invertebrate and algal cultures are maintained in-house; vertebrates are purchased exclusively from the same supplier since 1989.

Quality control is maintained by extensive documentation and monthly reference toxicant analysis. Acceptability of greater than 99% has been achieved in 2 annual DMRQA proficiency studies.

## **10.0 Environmental Analysis**

AC&T is a state-licensed environmental laboratory. Many chemical analyses are provided for compliance with city, state, and federal drinking water standards, aquifer protection permits, and wastewater NPDES/AZPDES permits. Constituents analyzed include forms of chlorine, nitrogen and

phosphorous, solids, metals, biochemical oxygen demand, anions, and total organic carbon. Specialized soil testing is available for contaminant identification, toxicity assessments, and bioremediation support. Chemical testing and sampling for NPDES/AZPDES industrial and municipal storm water runoff permits are available. AC&T also provides process and surface water contaminant identification using ICP, SEM/EDS, and a variety of microscopic examinations.





## MICROBIOLOGY

<b>Analysis</b>	<b>Method</b>	<b>Cost / Sample</b>	
		<b>Water</b>	<b>Soil</b>
<b>Total Coliform</b>			
Colilert	SM9223B	\$ 30.00	n/a
Colilert – MPN (QuantiTray)	SM9223B	\$ 30.00	\$ 60.00
Colilert (24 hr RUSH - Escrow)	SM9223B	\$ 60.00	n/a
<b>Fecal Coliform</b>			
Colilert -18 MPN (QuantiTray)	SM9223B	\$ 30.00	\$ 60.00
Biosolids	SM9221C	n/a	\$60.00
<b><i>E. coli</i></b>			
Colilert	SM9223B	\$ 30.00	n/a
Colilert – MPN (QuantiTray)	SM9223B	\$ 30.00	\$ 60.00
<b><i>Fecal streptococcus</i></b>			
MPN (15 tube/3 dilution series) – (1,600)	SM9230B	\$ 45.00	\$ 75.00
Each additional dilution		\$ 20.00	\$ 20.00
<b>Heterotrophic Plate Count (HPC)</b>	SM9215B	\$ 60.00	\$ 85.00
<b>Iron Bacteria (P/A Reactivity)</b>	SM9240B	\$ 65.00	\$ 100.00
<b>Sulfur Bacteria (P/A Reactivity)</b>	SM9240C	\$ 65.00	\$ 100.00
<b>Botulism Toxin Screening</b>		\$ 75.00	
<b>Denitrifying Bacteria</b>		\$ 65.00	
<b>Nitrifying Bacteria</b>		\$ 65.00	
<b>Slime Forming Bacteria</b>		\$ 65.00	
<b>Pseudomonas Screen</b>		\$ 60.00	
<b>Yeast &amp; Mold Count</b>		\$ 85.00	
<b>Fungus (Genus identification)</b>		\$ 85.00	
<b>Coliphage</b>		\$ 200.00	
<b>Mutagenicity (AMES test)</b>		Quote	
<b>Salmonella</b>		\$ 45.00	\$ 150.00
<b>Aeromonas Screen</b>		\$75.00	\$85.00
<b>Anaerobic Bacteria Count</b>		\$75.00	\$85.00

## BIOLOGY CONSULTING

<u>Consultation and Special Analyses</u>	<u>Cost / Hour</u>
Research and Developments – Special Projects	
Senior Microbiologist	\$ 150.00 *
Senior Biologist	\$ 150.00 *
Microbiology Technician	\$ 85.00 *
Clerical	\$ 50.00 *
<b>*minimum fee</b>	

## BIOMONITORING / BIOTOXICITY

	<u>Cost / Sample</u>		
	<u>Number of replicates</u>		
<b>Acute Toxicity Test (EPA Method 821-R-02-012)</b>	<b>2</b>	<b>4</b>	<b>5</b>
100% vs Control ( <i>Daphnia magna/pulex</i> , <i>Ceriodaphnia dubia</i> , or <i>Pimephales promelas</i> )			
24-hr static test	\$ 150.00	\$ 200.00	\$ 250.00
48-hr static test or renewal test	\$ 175.00	\$ 225.00	\$ 300.00
96-hr static test or renewal test	\$ 300.00	\$ 400.00	\$ 450.00
Five dilution series ( <i>Daphnia magna/pulex</i> , <i>Ceriodaphnia dubia</i> , or <i>Pimephales promelas</i> )			
24-hr static test	\$ 400.00	\$ 450.00	\$ 500.00
48-hr static test or renewal test	\$ 450.00	\$ 550.00	\$ 650.00
96-hr static test or renewal test	\$ 550.00	\$ 750.00	\$ 850.00
<b><u>Cost / Sample</u></b>			
<b>Chronic Toxicity Test (EPA Method 821-R-02-013)</b>			
Cladoceran ( <i>C. dubia</i> ) survival & reproduction [USEPA 1002.0]			
100% vs control (10 reps)	\$ 800.00		
Five dilution series (10 reps)	\$ 1150.00		
Fathead minnow ( <i>P. promelas</i> ) survival & growth [USEPA 1000.0]			
100% vs control (4 reps)	\$ 800.00		
Five dilution series (4 reps)	\$ 1150.00		
Algal growth test ( <i>R. subcapitata</i> ) [USEPA 1003.0]			
96-hr, 100% vs control (4 reps)	\$ 350.00		
96-hr, Five dilution series (4 reps)	\$ 750.00		
<b>Biostimulation test (SM8111)</b>	<b>\$ 900.00</b>		

\*All toxicity testing MUST be scheduled with the laboratory prior to sample submittal.\*



## BIOMONITORING / BIOTOXICITY

<b>SEDIMENT TOXICITY TEST</b>	<b><u>Cost / Sample</u></b>
ASTM E 1383	
5 replicates, 20 organisms per replicate, static	
<i>Hyalella azteca</i> , <i>Chironomus spp.</i>	
10-day survival test	\$ 700.00
10-day survival & growth test	\$ 800.00
30-day survival, growth, and reproduction test	\$ 2200.00
EPA 600/R-94/024	
8 replicates, 10 organisms per replicate, renewal	
<i>Hyalella azteca</i>	\$ 1300.00
<i>Chironomus spp.</i>	\$ 1300.00
<b>PRODUCT TESTING</b>	<b><u>Cost / Sample</u></b>
Screening	\$ 150.00 *
<i>*plus Acute or Chronic fees listed on the previous page.</i>	
<b>PRYMNESIN (Golden Algae ) Toxin Screen</b>	<b>\$ 150.00</b>

\*All toxicity testing MUST be scheduled with the laboratory prior to sample submittal.\*

## ORGANISM IDENTIFICATION AND QUANTIFICATION

<u>Algae</u>	<u>Cost / Sample</u>
Identification of dominant form (to division level)	\$ 50.00
Identification of dominant form (to Genus level)	\$ 75.00
Quantification - total cell count	\$ 50.00
Golden algae screen	\$ 50.00
Golden algae screen plus identification of dominant genus	\$ 75.00
Golden algae screen, identification of dominant genus, photo	\$ 100.00
Identification, percent composition by species, and total cell count	\$ 250.00
Chlorophyll a	\$ 60.00
Chlorophyll a & Pheophytin a	\$ 75.00
Chlorophyll a, b, c, & Pheophytin a	\$ 90.00
Chlorophyll a, b, c, & Pheophytin a	\$ 90.00
<u>Zooplankton</u>	<u>Cost / Sample</u>
Identification (only) to major taxa	\$ 75.00
Quantification (total count)	\$ 60.00
Identification & Differential Quantification to major taxa	\$ 125.00
<u>Aquatic Invertebrates</u>	<u>Cost / Sample</u>
Identification includes:	\$ 150.00
Insects (to Order level)	
Nematodes(to Phylum level)	
Flatworms (to Class level)	
Annelids (to Class level)	
Mollusks (to Family level)	
<u>Microscope Evaluations</u>	<u>Cost / Sample</u>
Microscopic Particulate Analysis (MPA)	\$ 400.00
General microscopic Identification of unknown material	\$ 85.00/hr *
Particle count / identification	\$ 85.00/hr *
*minimum.	

## GENERAL CHEMISTRY ANALYSIS

Water/Wastewater

<u>Analyte</u>	<u>Cost / Sample</u>	<u>Analyte</u>	<u>Cost / Sample</u>
Acidity	\$ 25.00	Nitrogen, Total N (TKN+NO <sub>3</sub> +NO <sub>2</sub> )	\$65.00
Acidity / Soil	\$ 25.00	ORP (Redox Potential)	\$60.00
Alkalinity	\$ 25.00	Oxygen, Dissolved	\$25.00
Ash	\$50.00	Oil & Grease (HEM)	
Biochemical Oxygen Demand	\$ 45.00	Gravimetric (1664 Hexane)	\$ 100.00
Bromide	\$ 25.00	Perchlorate	\$175.00
Carbon Dioxide	\$ 50.00	pH	\$ 20.00
Chemical Oxygen Demand	\$ 55.00	Phosphorus, Total	\$ 35.00
Chloride	\$ 25.00	Phosphorus, Ortho	\$ 25.00
Chlorine, free	\$ 25.00	Silt Density Index (SDI)	\$75.00
Chlorine, total	\$ 25.00	Silica, Soluble	\$ 30.00
Chromium, hexavalent	\$ 70.00	Solids, Dissolved	\$ 30.00
Color	\$50.00	Solids, Suspended	\$30.00
Conductivity	\$25.00	Solids, Settleable	\$ 30.00
Corrosivity (Langlier Index)	\$95.00	Solids, Total	\$ 30.00
Cyanide (CN), total or amenable	\$ 65.00	Solids, Volatile	\$ 50.00
EDS Scan +	\$ 250.00	SOUR	\$175.00
Electrical Conductivity	\$25.00	SSC * (Single)	\$60.00
Fluoride	\$25.00	SSC * (Multiple)	\$150.00
Formaldehyde	\$75.00	Sulfate	\$ 25.00
Hardness, Total	\$25.00	Sulfide, Total	\$30.00
Iron, Ferrous	\$60.00	Sulfide, Dissolved	\$30.00
Langlier/Ryznar Index	\$95.00	Sulfite	\$50.00
MBAS (Surfactants)	\$100.00	Tannin/Lignin (Extractable)	\$125.00
Moisture %	\$30.00	Total Organic Carbon (TOC)	\$75.00
Nitrogen, Ammonia	\$25.00	TPHC (HEM + SGT)	\$125.00
Nitrogen, Kjeldahl	\$40.00	Turbidity	\$25.00
Nitrogen, Nitrate + Nitrite	\$25.00	Threshold Odor Number (TON)	\$100.00
Nitrogen, Nitrate (only)	\$25.00	UV254	\$60.00
Nitrogen, Nitrite (only)	\$25.00		

+ Energy-dispersive X-ray spectroscopy

\*Suspended sediment concentration



## METALS ANALYSIS

<u>Parameter</u>	<u>Cost / Element</u>
Aluminum (Al)	\$20.00
Antimony (Sb)	\$20.00
Arsenic (As)	\$20.00
Barium (Ba)	\$20.00
Beryllium (Be)	\$20.00
Boron (B)	\$20.00
Cadmium (Cd)	\$20.00
Calcium (Ca)	\$20.00
Chromium (Cr)	\$20.00
Chromium, Hexavalent (Cr <sup>6</sup> )	\$70.00
Cobalt (Co)	\$20.00
Copper (Cu)	\$20.00
Iron (Fe),	\$20.00
Iron, Ferric (Fe <sup>+++</sup> )	\$20.00
Iron, Ferrous (Fe <sup>++</sup> )	\$60.00
Gold (Au)	\$50.00
Lead (Pb)	\$20.00
Lithium (Li)	\$20.00
Magnesium (Mg)	\$20.00
Manganese (Mn)	\$20.00
Mercury (Hg)	\$55.00
Molybdenum (Mo)	\$20.00
Nickel (Ni)	\$20.00
Palladium (Pd)	\$35.00
Potassium (K)	\$20.00
Selenium (Se)	\$20.00
Silver (Ag)	\$20.00
Sodium (Na)	\$20.00
Strontium (Sn)	\$20.00
Thallium (Tl)	\$20.00
Tin (Sn)	\$20.00
Vanadium (V)	\$20.00
Zinc (Zn)	\$20.00
Zirconium (Zr)	\$25.00

## SAMPLE PREPARATION

<u>Method Number</u>	<u>Matrices</u>	<u>Cost/Sample</u>
3005, 3010, 3020	Water, Wastewater	\$35.00
3050	Soils, Sediments, Solids	\$35.00
1311 (TCLP)	Toxicity Characterization Leaching Procedure	\$125.00
1312 (SPLP)	Synthetic Precipitation Leaching Procedure	\$150.00
ASTM	Soluble Metals	\$30.00



## GROUP ANALYSIS

Safe Drinking Water Act/Maricopa County New Source Approval	<u>Cost/Sample</u>
<b><u>Inorganic Compounds</u></b>	
Metals (Sb, As, Ba, Be, Cd, Cr, Ni, Hg, Se, Tl, Cyanide (CN), Fluoride (F), Nitrate (as N), and Nitrite (as N))	\$375.00
Asbestos	\$200.00
<b><u>Recommended Inorganic Compounds</u></b>	
Primary – As, Ba, Cd, Cr, F, Hg, NO <sub>3</sub> , NO <sub>2</sub> , Se	\$230.00
Secondary – Ca, Cu, Fe, Pb, Mg, Mn, Na, Zn, Alkalinity, Chloride, Hardness, pH, Sulfate, TDS	\$310.00
Lead (Pb) and Copper (Cu)	\$40.00
Langlier/Ryznar Index (pH, Temperature, Calcium Hardness, Alkalinity, TDS)	\$95.00
<b><u>Microbiology</u></b>	
Coliform, Total (Colilert)	\$30.00
<b><u>Radiochemical</u></b>	
Gross α **	\$75.00
Radium 226/228 (** May be required with positive detection)	\$215.00
Uranium (U)	\$180.00
<b><u>Volatile Organic Compounds (EPA 524)</u></b>	
MTBE (methyl+butylethane)	\$200.00
<b><u>Semi-Volatile Organic Compounds (less Dioxin &amp; Glyphosate)</u></b>	
EPA Methods 525.2, 531.1, 508, 515.1, 504, 548, 549.1	call
2, 3, 7, 8 – TCDD (Dioxin) EPA Method 1613 *	call
Glyphosate – EPA Method 547 *	call
<i>*Waiver program available. Contact ADEQ for details.</i>	
<b><u>Disinfection By-Products</u></b>	
Trihalomethanes (THMs) EPA Method 524.2	\$160.00
Haloacetic Acids (HAAs) EPA Method 552.2	\$200.00
<b>New Source Approval (depending on parameter list)</b>	~ \$3500.00
<b>Microscopic Particulate Analysis (MPA)</b>	\$400.00



**GROUP ANALYSIS (Continued)**

<b>Resource Conservation &amp; Recovery Act</b>	<b><u>Cost/Sample</u></b>
<u>Hazardous Waste Characterization</u>	
pH	\$20.00
Paint Filter	\$40.00
Flash Point	\$100.00
Reactivity (Cyanide, Sulfide, and Water)	\$180.00
8 RCRA Heavy Metals by TCLP (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	\$320.00
8 RCRA Heavy Metals by digestion (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	\$230.00
13 Priority Pollutants (Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Tl, Zn)	\$330.00
<b>Clean Water Act</b>	
	<b><u>Cost/Sample</u></b>
<u>National Pollution Discharge Elimination System (NPDES/AZPDES)</u>	
<u>Municipal Discharge Water Quality Monitoring</u>	
pH	\$20.00
Sulfides	\$30.00
Total Petroleum Hydrocarbons [HEM-SGT]	\$100.00
Cyanide	\$65.00
Metals (see metals analysis section)	
	<b><u>Cost/Sample</u></b>
<u>Total Toxic Organics (TTO)</u>	call
Volatile Organic Compounds – EPA Methods 624/8260	\$225.00
Semi-Volatile Organic Compounds – EPA Methods 625/8270	call
Chlorinated Pesticides – EPA Method 608/8080	call
Chlorinated Herbicides – EPA Method 615/8151	call



## BIO-SOLIDS ANALYSIS

<u>Test Group</u>	<u>Cost/Sample</u>
503 Nutrients (NH <sub>3</sub> , TKN, NO <sub>3</sub> +NO <sub>2</sub> , P-T)	\$125.00
503 Metals (As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn)	\$320.00
Fractional Volatile Solids Reduction	\$500.00
SOUR (includes TS, VSS)	\$165.00
Total Solids (TFS, TS, TVS)	\$80.00
<u>Hazardous Waste Disposal</u>	
EPA 8260 TCLP-ZHE (Volatiles)	call
EPA 8270 TCLP-ZHE (Semi-Volatiles)	call
EPA 8081 Pesticides (TCLP)	call
EPA 8151 Herbicides (TCLP)	call



## GENERAL AGRONOMY AND SOIL TESTS

<u>Test Group</u>	<u>Method</u>	<u>Cost/Sample</u>
<b>Cations:</b>		
Ca, Mg, Na, K, cation exchange capacity (CEC), exchangeable sodium	SPAC-NAA ICP	\$80.00
<b>Minor elements:</b>		
Cu, Fe, Mn, Zn	SPAC-DPTA	\$80.00
Boron	SPAC-ICP	\$25.00
Sulfate/Sulfur	ASA 79-4	\$25.00
Nitrate	SPAC DPTA	\$25.00
Kjeldahl nitrogen	ASA 83-7	\$45.00
Phosphate/Phosphorus	SPAC DPTA	\$35.00
Salinity (Soluble salts/electrical conductivity)	ARIZ 237B	\$25.00
pH	ARIZ 237B	\$20.00
Organic matter	ASA 90-3	\$35.00
Cation exchange capacity	ARIZ 57-3	\$80.00
Chloride	ARIZ 736	\$25.00
Free lime (qualitated)		\$20.00
Lime (quantitated)		\$40.00

## FIELD SAMPLING/CONSULTATION FEES

<b><u>Field Sampling</u></b>	<b><u>Cost</u></b>
Travel, per hour (2 hr minimum)	\$85.00
Mileage, per mile	\$0.75
Specimen Collection, per hour	
Field Biologist/Chemist	\$85.00
Project Manager	\$125.00
Principal, Senior Staff	\$175.00
<b><u>Sample pick-up Service</u></b>	
Routine sample pick-up (24 hour notice is required for scheduling)	\$75.00
<b><u>Consultation</u></b>	
Expert Witness	\$300.00
Research or Report Prep	
Field Biologist/Chemist	\$85.00
Project Manager	\$125.00
Principal, Senior Staff	\$175.00
Clerical	\$50.00
<b><u>Miscellaneous</u></b>	
Disposal Fee *	\$10.00
Minimum Invoice Fee	\$50.00
Sample Hold Charge ( <i>per sample</i> )	\$10.00
Compositing Fee ( <i>per sample</i> )	\$20.00
Materials (lake chemicals, equipment repair parts+10%)	At cost

\*Applied to any sample determined to be a hazardous/special waste.

