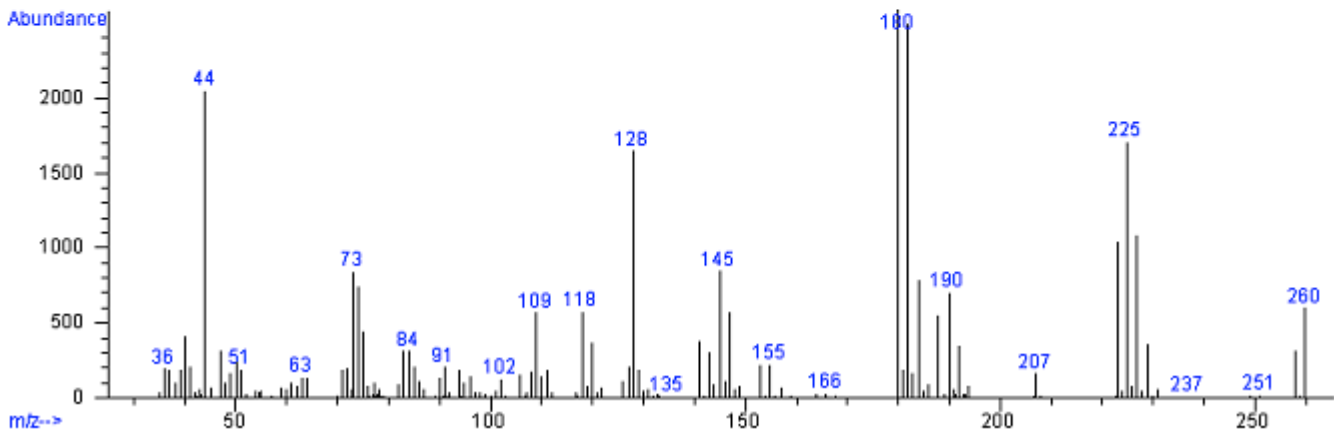
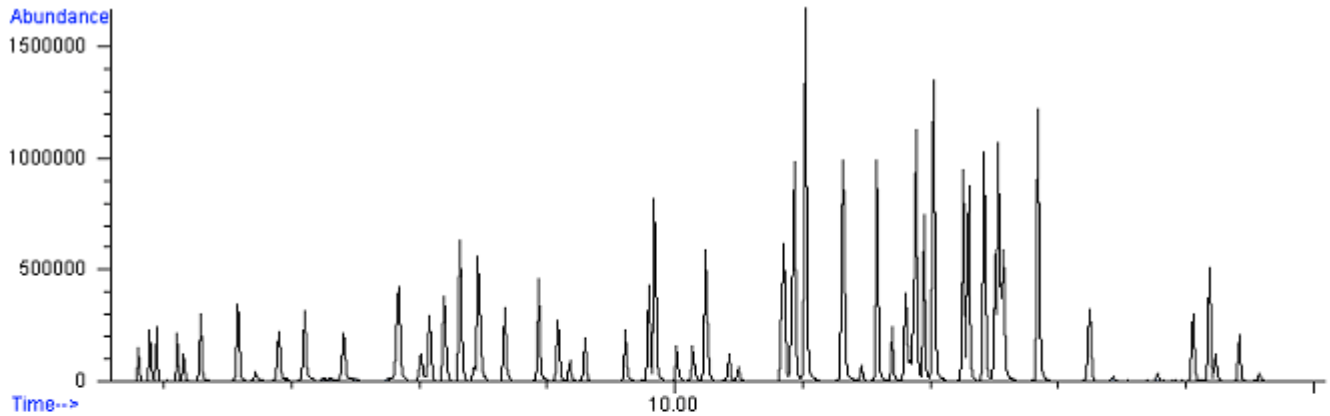


# UMPQUA Research Company

Drinking Water  
and  
Environmental Analytical Services



## FEE SCHEDULE

For 2008

P. O. Box 609, 626 N.E. Division Street  
Myrtle Creek, Oregon 97457

Voice: (541) 863-5201 Fax: (541) 863-6199

Web Site – <http://www.ChemLab.cc> E-mail – [lab@urcmail.net](mailto:lab@urcmail.net)



# UMPQUA Research Company

## LABORATORY SERVICES

*"Accurate results, on time, every time"*

As the analytical laboratory division of UMPQUA Research Company (URC), we boast extensive capabilities in the areas of chemical and microbiological analysis, plus capabilities for specialized or “unusual” analysis requests. Founded in 1973, our locally owned, analytical laboratory is certified in Oregon for the determination of regulated inorganic, organic and microbial drinking water contaminants, with full capabilities for environmental analyses as well. URC consists of a group of highly trained professionals experienced in chemical and microbial analysis, environmental studies, and engineering research and development. The staff includes chemical, electrical and mechanical engineers, chemists and biological scientists. Our laboratory personnel are active participants in the Oregon Environmental Laboratory Association (OELA). These capabilities are extended to the community at large throughout the Pacific Northwest.

**We look forward to serving your Drinking Water and Environmental Analysis needs.**

- Our activities are conducted under the supervision of a *Certified Professional Chemist*.
- We routinely provide reports in many different or customized formats to include specialized QC reports, electronic data transfer, e-mail, faxing or other special requirements on request.
- All of our data are fully computerized for more accurate and faster results, with an automated Laboratory Information Management System (LIMS) for record keeping and retrieval.

Our analytical lab originated to provide critical support for our parent research company, which specializes in the development of novel forms of analytical instrumentation and new technologies for air and water purification, solid waste treatment, disinfection and sterilization. Funding for our research and development is primarily from NASA and major aerospace firms, in addition to the National Institutes of Health, the National Science Foundation, and the Departments of Energy and Defense. We continually strive for the highest levels of quality and client satisfaction. Though we have a complete complement of analytical instrumentation, we realize that our primary strength is in our people.

- Every Space Shuttle that has ever flown has used our technology for on-board disinfection of drinking water.
- Before every space walk American astronauts use our technology to prepare their portable life support systems.
- We are designers of the primary water purification system for the International Space Station.

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# Individual Analyte Pricing

## Contact Lab Prior to Sampling for Specific Instructions

Acidity (as CaCO <sub>3</sub> ).....	SM 2310B.....	\$26	Molybdenum .....	SM 3113B.....	\$38
Alkalinity (as CaCO <sub>3</sub> ).....	SM 2320B.....	\$26	Nickel (Ni).....	SM 3113B.....	\$32
Aluminum (Al).....	SM 3111D.....	\$32	Nitrogen, Ammonia (NH <sub>3</sub> -N) ..	SM 4500NH <sub>3</sub> .....	\$38
Antimony (Sb).....	SM 3113B.....	\$26	Nitrogen, Nitrate <sup>1</sup> (NO <sub>3</sub> <sup>-</sup> ).....	EPA 300.0.....	\$45
Arsenic (As).....	SM 3113B.....	\$32	Nitrate (NO <sub>3</sub> <sup>-</sup> ) + Nitrite (NO <sub>2</sub> <sup>-</sup> )	EPA 300.0.....	\$58
Asbestos.....	EPA 100.1/2.....	\$441	Nitrogen, Nitrite <sup>1</sup> (NO <sub>2</sub> <sup>-</sup> ).....	EPA 300.0.....	\$45
Barium (Ba).....	SM 3113B.....	\$38	Nitrogen, Kjeldahl.....	SM 4400N <sub>org</sub> B.....	\$38
Beryllium (Be).....	SM 3113B.....	\$26	Odor.....	SM 2150B.....	\$38
Bicarbonate.....	SM4500.....	\$26	Oil & Grease.....	SM 5520B.....	\$45
Biochemical Oxygen Demand(BOD) <sup>1</sup>	SM 5210B.....	\$51	Organic Carbon (TOC).....	SM 5310D.....	\$45
Bismuth (Bi) .....	SM 3111 .....	Quote	pH.....	SM 4500H B.....	\$16
Boron (B).....	EPA 212.3.....	\$63	Phenolics (direct).....	SM 5530B&D.....	\$38
Bromate (BrO <sub>3</sub> <sup>-</sup> ).....	EPA 300.1.....	\$69	Phenolics (extraction).....	SM 5530B&C.....	\$69
Bromide (Br <sup>-</sup> ).....	EPA 300.0.....	\$51	Phosphate, Ortho <sup>1</sup> (PO <sub>4</sub> <sup>3-</sup> ).....	EPA 300.0.....	\$38
Cadmium (Cd).....	SM 3113B.....	\$32	Phosphorus, Total.....	SM 4500P-E.....	\$38
Calcium (Ca).....	SM 3111D.....	\$32	Potassium (K).....	SM 3111B.....	\$26
Carbonate.....	SM4500.....	\$26	Selenium (Se).....	SM 3113B.....	\$32
Cation Exchange Capacity.....	EPA 9080.....	\$63	Silica.....	SM 4500Si.....	\$38
Chemical Oxygen Demand (COD) <sup>1</sup>	SM 5220D.....	\$38	Silver (Ag).....	SM 3111B.....	\$69
Chloride (Cl <sup>-</sup> ).....	EPA 300.0.....	\$26	Sodium (Na).....	SM 3111B.....	\$21
Chlorate (ClO <sub>3</sub> <sup>-</sup> ).....	EPA 300.1.....	\$69	Solids – Fixed.....	SM 2540E.....	\$26
Chlorite(ClO <sub>2</sub> <sup>-</sup> ).....	EPA 300.1.....	\$69	Solids – Settleable.....	SM 2540F.....	\$26
Chlorine, Residual.....	SM 4500Cl.....	\$32	Solids – Total.....	SM 2540B.....	\$26
Chromium, Total (Cr).....	SM 3113B.....	\$32	Solids, Dissolved (TDS).....	SM 2540C.....	\$26
Chromium (Hexavalent) <sup>1</sup> .....	SM 3500Cr.....	\$63	Solids, Suspended (TSS).....	SM 2540D.....	\$26
Cobalt (Co).....	SM 3113B.....	\$38	Solids, Volatile.....	SM 2540E.....	\$32
Color (Color Units).....	SM 2120B.....	\$16	Specific Conductance.....	SM 2510B.....	\$16
Copper (Flame AA).....	SM 3111B.....	\$26	Sulfate (SO <sub>4</sub> <sup>2-</sup> ).....	EPA 300.0.....	\$38
Copper (GFAA).....	SM 3113B.....	\$28	Sulfide (S <sup>2-</sup> ).....	SM 4500-S <sup>2-</sup> C.F.....	\$45
Corrosivity (Langelier Index) See <b>Packages</b>		\$80	Sulfite (SO <sub>3</sub> <sup>2-</sup> ).....	SM 4500-SO <sub>3</sub> <sup>2-</sup> B.....	\$45
Cyanide (CN <sup>-</sup> ).....	SM 4500-Cn <sup>-</sup> C.E.....	\$63	Tannin-Lignin.....	SM 5550.....	\$32
Dioxin .....	(2,3,7,8 –TCDD .....	\$960	Thallium (Tl).....	SM 3113B.....	\$30
Dissolved Organic Carbon <sup>1</sup> .....	SM5310C.....	\$63	Turbidity.....	SM 2130.....	\$26
Flash Point (Pensky-Martin Cup) ...	EPA 1010.....	\$95	Vanadium (V).....	SM 3113B.....	\$38
Fluoride (F <sup>-</sup> ).....	EPA 300.0.....	\$32	Zinc (Zn).....	SM 3111B.....	\$26
Formaldehyde.....		\$96			
Hardness.....	SM 2340C.....	\$26			
Iodide (I <sup>-</sup> ).....	EPA 300.0.....	\$45			
Iodine (I <sub>2</sub> ).....	SM 4500IB.....	\$45			
Iron (Fe).....	SM 3111B.....	\$32			
Lead (Pb).....	SM 3113B.....	\$32			
Magnesium (Mg).....	SM 3111B.....	\$26			
Manganese (Mn).....	SM 3113B.....	\$32			
Methylene Blue Active Substances <sup>1</sup>	SM 5540C.....	\$63			
Mercury (Hg).....	EPA 245.1.....	\$53			

<sup>1</sup> Contact lab prior to sampling for special instructions  
 EPA – Methods for Chemical Analysis of Water & Wastes  
 SM – Standard Methods for Examination of Water  
 Wastewater  
 Other methods upon request.

# DISCOUNT DRINKING WATER PACKAGES

<b>Real Estate Package – Nitrate and Total Coliforms/<i>E.coli</i> (Call before sampling)</b> .....	<b>\$79</b>
<b>New Well Package – Nitrates/Chloride/Total Coliforms/<i>E.coli</i></b> .....	<b>\$105</b>
<b>Nitrate (also included in several packages)</b> .....	<b>\$45</b>

**Coliform Bacterial Analysis –Total Coliforms/*E. coli***

Weekly Samples .....	<b>\$18</b>
Monthly Samples .....	<b>\$23</b>
Quarterly Samples.....	<b>\$32</b>
Regular Samples .....	<b>\$38</b>

<b>Lead &amp; Copper Only</b> .....	First 5 samples (each) .....	<b>\$45</b>
	Each additional sample (each).....	<b>\$24</b>

<b>Economy Package:</b> pH, Color, Hardness, Sulfur odor, Conductance, Turbidity, and Iron.....	<b>\$90</b>
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<b>Diagnostic Package:</b> Total Dissolved Solids (TDS), Specific Conductance, Hardness (Calcium Carbonate), Manganese, Iron, and pH .....	<b>\$80</b>
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<b>General Package:</b> Nitrate, Nitrite, Chloride, Lead, Copper, Arsenic, Sodium, and Total Coliforms/ <i>E. coli</i> .....	<b>\$200</b>
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<b>Mercury Package:</b> Includes Economy and General, plus Mercury.....	<b>\$300</b>
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<b>Corrosivity (Langelier Index):</b> Total Alkalinity, Specific Conductance, TDS, pH & Calcium .....	<b>\$85</b>
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<b>Corrosion Package:</b> Total Alkalinity, Specific Conductance, TDS, pH, Calcium, Copper, Corrosivity (Langelier Index), Lead, Sodium and Zinc .....	<b>\$200</b>
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<b>Complete Package:</b> Includes Economy, Diagnostic, General, and Corrosion, plus Mercury .....	<b>\$500</b>
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**Inorganic Regulated Package - Oregon State and Noncommunity Water Systems:**

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Sodium, Sulfate, Selenium, and Thallium .....	<b>\$355</b>
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<b>Oregon/Washington Primary:</b> Arsenic, Barium, Cadmium, Chromium, Fluoride, Lead, Mercury, Nitrate, Selenium, Silver .....	<b>\$175</b>
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<b>Oregon &amp; National Secondary:</b> Aluminum, Chloride, Color, Conductivity, Copper, Corrosivity, Alkalinity, Calcium, Fluoride, Foaming agents (MBAS), Hardness, Iron, Manganese, Odor, Silver, Solids (total), Sulfate, TDS, Zinc, and pH .....	<b>\$290</b>
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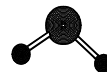
<b>Complete Phase II and V* – IOC’s, SOC’s and VOC’s (Regulated &amp; Unregulated)</b> .....	<b>\$1860</b>
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\*Except Asbestos & Dioxin

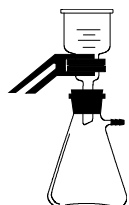
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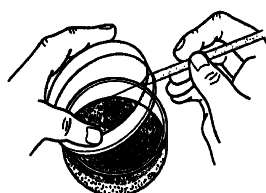
# DRINKING WATER ANALYSIS



Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) mandates the routine analysis of all public water supplies to determine if any potentially hazardous contaminants are present and, if so, in what concentration. UMPQUA Research is accredited by the State of Oregon (ORELAP Approved Laboratory #100031), in accordance with the National Environmental Laboratory Accreditation Program (NELAP) to perform these services. Contaminants are grouped together by the EPA in to: Coliforms, Disinfection By-Products, Inorganic Chemicals (IOC's), Synthetic Organic Chemicals (SOC's), Volatile Organic Chemicals (VOC's), and Radiochemicals.



## Coliforms



<b>Total Coliforms / Fecal Coliforms</b>	<b>Method</b>	<b>Price</b>
Colilert (Total Coliform & <i>E. coli</i> ) P/A.....	EPA 9223B .....	<b>\$38</b>
Fermentation Technique ( Total + Fecal) P/A.....	SM 9221 A,B,C,E.....	<b>\$48</b>
Heterotrophic Plate Count .....	SM 9215B.....	<b>\$63</b>
Detergent & Inhibitory Residue.....	SM 9020B.....	<b>\$168</b>
Distilled Water Suitability.....	SM 9020B.....	<b>\$226</b>

## Disinfection / Disinfection By-Products

Most community water systems control the growth of microorganisms by the addition of chlorine. An unwanted result of chlorination can be the formation of new compounds by the reaction of chlorine with natural dissolved organic compounds. These are called Disinfection By-Products, the most common of which are Trihalomethanes.

<b>Chloramines, Chlorine, Chlorine-dioxide (call before sampling) SM 4500CCO<sub>2</sub>D .....</b>	<b>\$63</b>
<b>Trihalomethanes, Total (TTHMs) - EPA 524.2 - Chloroform, Bromodichloromethane, Chlorodibromomethane, Bromoform.....</b>	<b>\$120</b>
<b>Haloacetic Acids – SM 6251B.....</b>	<b>\$200</b>
<b>Anions - 300.1 - Bromate / Chlorite .....</b>	<b>\$69</b>



## Inorganic Chemicals (IOC's)

Inorganic Chemicals (IOC's) are natural substances that often are very soluble in water. Some are heavy metals such as Arsenic, Lead and Mercury, others are non-metallic ions such as Cyanide, Fluoride or Nitrate. Prices for individual inorganics are summarized on Page 1.

The Package presented below is the complete Phase II/V listing for IOCs except asbestos.

**IOC's** - Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Sulfate, Thallium .....**\$342**



## Synthetic Organic Chemicals (SOC's)

Synthetic Organic Chemicals (SOC's) are man-made carbon containing substances such as pesticides, herbicides, and solvents. These are generally not very soluble in water, but may be present at very low levels.

**Synthetic Organic Chemicals - Phase II & V Testing** ..... **\$1390**

<b>Regulated</b>	Dibromochloropropane (DBCP)	Methoxychlor	Aldicarb Sulfoxide
2,4-D	Dinoseb	Pentachlorophenol	Aldicarb Sulfone
2,4,5-TP	Diquat	2-ethylhexyl Phthalate	Aldrin
Bis(2-ethylhexyl) Adipate	Endothall	Picloram	Butachlor
Alachlor (Lasso)	Endrin	Polychlorinated	Carbaryl
Atrazine	Ethylene Dibromide (EDB)	Biphenyls (PCB's)	Dicamba
Benzo(a)pyrene	Glyphosate	Simazine	Dieldrin
γ-BHC (Lindane)	Heptachlor	Toxaphene	Methomyl
Carbofuran	Heptachlor epoxide	Vydate	Metolachlor
Chlordane	Hexachlorobenzene	<b>Unregulated</b>	Metribuzin
Dalapon	Hexachlorocyclopentadiene	3-Hydroxycarbofuran	Propachlor
		Aldicarb	

**EPA Method 504.1** - Ethylene Dibromide (EDB), Dibromochloropropane (DBCP) ..... **\$110**

**EPA Method 525.2** ..... **\$345**

Alachlor (Lasso)	Bis-2-ethylhexyl Adipate	Heptachlor	Metolachlor
Aldrin	Bis 2-ethylhexyl Phthalate	Heptachlor epoxide	Metribuzin
Atrazine	Butachlor	Hexachlorobenzene	Propachlor
BHC-gamma (Lindane)	Dieldrin	Hexachlorocyclopentadiene	Simazine
Benzo(a)pyrene	Endrin	Methoxychlor	

**EPA Method 508.1** - Chlorinated Pesticides: Chlordane, Toxaphene, PCB's - ID Aroclors ..... **\$110**

**EPA Method 515.2** - Chlorinated Organic Acids: 2,4-D, 2,4,5-TP (Silvex), Dicamba, Dinoseb, Pentachlorophenol, Picloram ..... **\$170**

**EPA Method 531.1** - Carbamate pesticides: ..... **\$170**

Aldicarb	Carbaryl	Methomy
Aldicarb Sulfone	Carbofuran	Oxamyl (Vydate)
Aldicarb Sulfoxide	3-Hydroxycarbofuran	

**EPA Method 547** - Glyphosate (Roundup) ..... **\$150**

**EPA Method 548.1** – Endothall ..... **\$170**

**EPA Method 549.2** – Diquat ..... **\$170**

## Volatile Organic Chemicals (VOC's)

Volatile Organic Chemicals (VOC's) are man-made carbon containing substances such as Benzene, Toluene, and Xylenes which evaporate quickly when exposed to air.

**Volatile Organic Chemicals - (EPA 524.2) Phase II & V .....\$225**

**Regulated**

Benzene  
Carbon Tetrachloride  
Chlorobenzene  
1,2-Dichlorobenzene  
1,4-Dichlorobenzene  
1,2-Dichloroethane  
1,1-Dichloroethylene  
*cis*-1,2-Dichloroethylene  
*trans*-1,2-Dichloroethylene  
1,2-Dichloropropane  
Ethylbenzene  
Methylene chloride  
Styrene  
Tetrachloroethylene  
Toluene

Total Xylenes  
1,2,4-Trichloro-benzene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene  
Vinyl Chloride

**Unregulated**

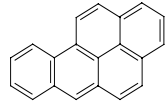
Bromobenzene  
Bromoform  
Bromodichloromethane  
Bromomethane  
Chloroethane  
Chloroform  
Chloromethane  
2-Chlorotoluene

4-Chlorotoluene  
Dibromochloromethane  
Dibromomethane  
1,3-Dichlorobenzene  
1,1-Dichloroethane  
1,3-Dichloropropane  
2,2-Dichloropropane  
1,1-Dichloropropene  
*cis*-1,3-Dichloropropene  
*Trans*-1,3-Dichloropropene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
1,2,3-Trichloropropane

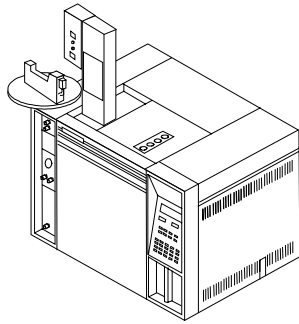
## Radiochemicals

Radiochemicals are natural or man-made substances that are *radioactive*. These materials are unstable and emit *alpha*, *beta*, and *gamma* radiation as they decompose.

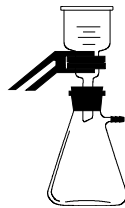
<b>Gross Alpha Radiation</b> .....	EPA 900.0.....	<b>\$110</b>
<b>Gross Alpha &amp; Gross Beta</b> .....	EPA 900.0.....	<b>\$147</b>
<b>Radium 226 &amp; 228</b> .....	E903.0 & RA-05/Calculation .....	<b>\$315</b>
<b>Uranium</b> .....	EPA200.8 .....	<b>\$150</b>
<b>Radon</b> .....	EPA913.0/SM7500RN .....	<b>\$137</b>



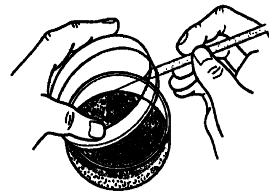
# ENVIRONMENTAL ANALYSIS



UMPQUA Research Company – Analytical Services Laboratory, is an active participant in the Oregon Environmental Laboratory Association (OELA). We perform analyses in conjunction with the Resources Conservation and Recovery Act (RCRA) and CERCLA (Superfund) legislation, as well as requirements set forth by the National Pollution Discharge Elimination System (NPDES) and Oregon’s DEQ. Other methods and analyses are also available upon request.



## Coliforms



Total Coliforms / Fecal Coliforms	Method	Price
Colilert(Total Coliform & <i>E. coli</i> ) MPN .....	EPA 9223B Quantitray .....	\$42
15 Tube MPN (3 Dilutions) (Total & Fecal) .....	SM 9221A,B,C,E .....	\$53
35 Tube MPN (7 Dilutions) for Fecal Sludge.....	SM 9221A,B,C,E.....	\$75
Membrane Filter Method .....	SM 9222A & B .....	\$60
Fecal <i>Enterococci</i> MPN (35 Tube, 7 dil.).....	SM 9230B .....	\$70



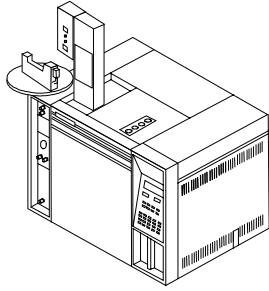
## Semivolatile Organics

**Semivolatile Organics (EPA 8270/625) – Environmental SOC’s (GC/MS).....\$695**

Acenaphthene	Butylbenzylphthalate	4,6-Dinitro-2-methylphenol	4-methylphenol
Acenaphthylene	2-Chloronaphthalene	2,4-Dinitrophenol	Naphthalene
Anthracene	4-Chloro-3-methylphenol	2,4-Dinitrotoluene	Nitrobenzene
Azobenzene	2-Chlorophenol	2,6-Dinitrotoluene	2-Nitrophenol
Benzidine	Chrysene	Di-n-butylphthalate	4-Nitrophenol
Benzoic acid	4-Chlorophenyl-phenyl ether	1,2-Diphenylhydrazine	N-Nitrosodi- <i>n</i> -propylamine
Benzo(a)anthracene	<i>o</i> -Dichlorobenzene	Di- <i>n</i> -octylphthalate	N-Nitrosodiphenylamine
Benzo(b)fluoranthene	<i>m</i> Dichlorobenzene	Fluoranthene	N-Nitrosodimethylamine
Benzo(k)fluoranthene	<i>p</i> -Dichlorobenzene	Fluorene	Pentachlorophenol
Benzo(g,h,i)perylene	Dibenzo(a,h)anthracene	Hexachloroethane	Phenanthrene
Benzo(a)pyrene	3,3'-Dichlorobenzidine	Hexachlorobutadiene	Phenol
Bis(2-chloroethyl)ether	2,4-Dichlorophenol	Hexachlorocyclopentadiene	Pyrene
Bis(2-chloroethoxy)methane	2,6-Dichlorophenol	Hexachlorobenzene	2,3,4,6-Tetrachlorophenol
Bis(2-chloro-isopropyl)ether	Diethylphthalate	Indeno(1,2,3-cd)pyrene	1,2,4-Trichlorobenzene
Bis(2-ethylhexyl)phthalate	2,4-Dimethylphenol	Isophorone	2,4,5-Trichlorophenol
4-Bromophenyl-phenyl ether	Dimethylphthalate	2-methylphenol	2,4,6-Trichlorophenol

## Environmental SOC's (GCMS) – Individual

<b>Phenols (EPA 8270/625) .....</b>				<b>\$225</b>
Benzoic acid	4,6-Dinitro-o-cresol	Pentachlorophenol		
4-Chloro-3-methylphenol	2,4-Dinitrophenol	Phenol		
2-Chlorophenol	2-Methylphenol	2,4,5-Trichlorophenol		
2,4-Dichlorophenol	4-Methylphenol	2,4,6-Trichlorophenol		
2,6-Dichlorophenol	2-Nitrophenol	2,3,4,6-Tetrachlorophenol		
2,4-Dimethylphenol	4-Nitrophenol			
<b>Polynuclear Aromatic Hydrocarbons (PAH's-EPA 8270/625) .....</b>				<b>\$225</b>
Acenaphthene	Benzo(a)pyrene	Chrysene	Indeno(1,2,3-cd)pyrene	
Acenaphthylene	Benzo(b)fluoranthene	Dibenzo(ah)anthracene	Naphthalene	
Anthracene	Benzo(ghi)perylene	Fluoranthene	Phenanthrene	
Benzo(a)anthracene	Benzo(k)fluoranthene	Fluorene	Pyrene	
<b>Polychlorinated Biphenyls (PCB's - EPA 8082/608) .....</b>				<b>\$170</b>
<b>Polychlorinated Biphenyls (PCB's) - Transformer Oil (EPA 9079) .....</b>				<b>\$76</b>
<b>Phthalate Esters (EPA 8270/625) .....</b>				<b>\$225</b>
Benzylbutylphthalate	Di-n-butyl-phthalate	Dimethylphthalate		
Bis(2-ethylhexyl)phthalate	Diethylphthalate	Di-n-octylphthalate		
<b>Organochlorine Pesticides and PCBs (EPA 8270/8081/8082) .....</b>				<b>\$225</b>
Aldrin	Chlordane	Endosulfan I	Endrin ketone	
$\alpha$ -BHC	(alpha and gamma)	Endosulfan II	Heptachlor	
$\beta$ -BHC	4,4'-DDD	Endosulfan Sulfate	Heptachlor Epoxide	
$\delta$ -BHC	4,4'-DDE	Endrin	Methoxychlor	
$\gamma$ -BHC (Lindane)	4,4'-DDT	Endrin aldehyde	Toxaphene	
	Dieldrin		Polychlorinated Biphenyls (PCB's)	
<b>Organophosphorus Pesticides (EPA 8141) .....</b>				<b>\$285</b>
Azinphos methyl	Demeton-S	Fensulfothion	Parathion methyl	
Bolstar	Diazinon	Fenthion	Phorate	
Chlorpyrifos	Dichlorvos	Merphos	Ronnel	
Coumaphos	Disulfoton	Mevinphos	Stirophos	
Demeton-O	Ethoprop	Naled	Tokuthion	
			Trichloronate	
<b>Single, Non-Listed Pesticide .....</b>				<b>\$158</b>
<b>Single Listed Pesticide or Semi-Volatile .....</b>				<b>\$150</b>
<b>Chlorinated Herbicides (EPA 615/8151) .....</b>				<b>\$285</b>
2,4-D	2,4,5-TP (Silvex)	Dicamba	Pentachlorophenol	
2,4,5-T	Dalapon	Dinoseb		
<b>Single, Non-Listed Herbicide .....</b>				<b>\$184</b>
<b>Single Listed Herbicide .....</b>				<b>\$150</b>
<b>Extraction of Herbicides from soils .....</b>				<b>\$105</b>
<b>Extraction of Pesticides from soils .....</b>				<b>\$53</b>



## Volatile Organics

### Volatile Organics (EPA 8260/624)..... \$285

Acetone,	Chloromethane	Dichlorodifluoromethane	1,1,1,2-Tetrachloroethane
Acrylonitrile	2-Chlorotoluene	1,2-Dichloropropane	1,1,2,2-Tetrachloroethane
Benzene	4-Chlorotoluene	1,3-Dichloropropane	Tetrachloroethylene
Bromobenzene	Dibromochloromethane	2,2-Dichloropropane	Toluene
Bromochloromethane	1,2-Dibromo-3-chloropropane	1,1_Dichloropropene	1,2,3-Trichlorobenzene
Bromodichloromethane	1,2-Dibromoethane	<i>cis</i> -1,3-Dichloropropene	1,2,4-Trichlorobenzene
Bromoform	Dibromomethane	<i>trans</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Bromomethane	1,2-Dichlorobenzene	Ethylbenzene	1,1,2-Trichloroethane
<i>n</i> -Butylbenzene	1,3-Dichlorobenzene	Hexachlorobutadiene	Trichloroethylene
<i>sec</i> -Butylbenzene	1,4-Dichlorobenzene	Isopropylbenzene	Trichlorofluoromethane
<i>tert</i> -Butylbenzene	1,1-Dichloroethane	4-Isopropyltoluene	1,2,3-Trichloropropane
Carbon tetrachloride	1,2-Dichloroethane	Methylene chloride	1,3,5-Trimethylbenzene
Chlorobenzene	1,1-Dichloroethylene	Methyl_ethyl_ketone	1,2,4- Trimethylbenzene
Chloroethane	<i>cis</i> -1,2-Dichloroethylene	Naphthalene	Vinyl chloride
Chloroform	<i>trans</i> -1,2-Dichloroethylene	<i>n</i> -Propylbenzene	<i>m,p</i> -Xylene
		Styrene	<i>o</i> -Xylene

### Halogenated Volatile Organics (EPA 8260/624)..... \$168

Benzyl Chloride	Chlorodibromomethane	<i>m</i> -Dichlorobenzene	1,1,2,2-Tetrachloroethane
Bis(2-chloroethoxy)methane	Chloroethane	<i>p</i> -Dichlorobenzene	1,1,1,2-Tetrachloroethane
Bis(2-chloroisopropyl)ether	Chloroform	Dichlorodifluoromethane	Tetrachloroethylene
Bromobenzene	1-Chlorohexane	1,1-Dichloroethane	1,1,1-Trichloroethane
Bromodichloromethane	2-Chloroethylvinyl ether	1,2-Dichloroethane	1,1,2-Trichloroethane
Bromoform	Chloromethane	1,1-Dichloroethylene	Trichloroethylene
Bromomethane	Chloromethylmethyl ether	<i>trans</i> -1,2-Dichloroethylene	Trichlorofluoromethane
Carbon tetrachloride	Chlorotoluene	Dichloromethane	Trichloropropane
Chloroacetaldehyde	Dibromomethane	1,2-Dichloropropane	Vinyl chloride
Chlorobenzene	<i>o</i> -Dichlorobenzene	<i>trans</i> -1,3-Dichloropropylene	

**Aromatic Volatile Organics (EPA 8260/624)** - Benzene, Chlorobenzene, *o*-Dichlorobenzene, *m*-Dichlorobenzene, *p*-Dichlorobenzene, Toluene, Ethylbenzene, Xylenes ..... \$147

**BTEX-Water only (EPA 8260)** - Benzene, Toluene, Ethylbenzene, Xylenes..... \$110

## Underground Storage Tank (UST) Fuel Residue

Hydrocarbon Identification .....	OR-DEQ NWTPH-HCID .....	\$137
Quantitation: Gasoline .....	OR-DEQ NWTPH-Gx .....	\$137
Quantitation: Diesel .....	OR-DEQ NWTPH-Dx (Water) .....	\$137
Quantitation: Diesel .....	OR-DEQ-NWTPH-Dx (Soil).....	\$190
Quantitation: Bunker C, Lube Oils .....	OR-DEQ Ext NWTPH-Dx .....	\$137
Light Aromatics-Soil (BTEX/TPH-G) .....	EPA 8021B .....	\$152
Hydrocarbon Identification with Quantitation.....		\$190

## Storm Water Runoff Services

<b>SW 1200-A</b>	pH, Settleable Solids, Total Suspended Solids (TSS), Oil & Grease .....	<b>\$90</b>
<b>SW 1200-Z</b>	pH, Copper, Lead, Zinc; TSS, Oil & Grease, BOD.....	<b>\$192</b>
<b>SW 1200-Z</b>	<b>Landfill</b> – pH; Total Copper, Lead & Zinc; TSS, Oil & Grease, <i>E. coli</i> .....	<b>\$184</b>

## Miscellaneous Testing

### Bottled Water Analysis Package ..... **\$3190**

Coliform-MPN	Turbidity	Bromate	Uranium
Total Phenolics	Potassium	Chlorite	Chlorine
IOC, SOC, VOC	Ortho-phosphate	Gross Alpha, Gross Beta,	Chloramine
Oregon Secondary	Haloacetic Acids	Radium 226/228	Chlorine Dioxide

### EPA Distilled Water Metals – Cadmium, Chromium, Copper, Lead, Nickel, Zinc ..... **\$147**

### Water Suitability (Microbiology Lab Usage) ..... **\$285**

### Sludge Analysis (EPA 3050B) ..... **\$345**

Arsenic	Lead	Mercury	Zinc
Cadmium	Nickel	Molybdenum	Total Solids
Chromium	Nitrogen (Total Kjeldahl,	Total Phosphorus	Volatile Solids
Copper	Ammonia, and Nitrate),	Potassium	(based on solids content)
		Selenium	

### Toxic Characteristic Leaching Procedure (TCLP) EPA 1311

Metals & Non-volatiles Extraction .....	EPA 1311 .....	<b>\$130</b>
Zero Headspace Extraction .....	EPA 1311 .....	<b>\$170</b>
Metals Analysis - As, Ba, Cd, Cr, Pb, Hg, Se, Ag .....	SM 3113B / EPA245.1 .....	<b>\$300</b>
Special sample preparation charge (grinding, pulverizing, etc.).....	By Quotation	

## Sampling, Preparation, Cleanup & Miscellaneous



Sample collection fee	\$0.55 / mile + time @ \$60 / hr	
Acid Digestion .....		<b>\$42</b>
Basic Fusion .....		<b>\$42</b>
Fluorosil, Silica Gel, or Alumina Column Cleanup.....		<b>\$42</b>
Steam Distillation.....		<b>\$95</b>
Heat of Combustion (Bomb Calorimetry).....		<b>\$110</b>
Extraction of Herbicides from soils .....		<b>\$105</b>
Extraction of Pesticides from soils.....		<b>\$53</b>
Composite Fee .....		<b>\$21</b>
Sonication with Methylene Chloride (HCID in Soil) .....		<b>\$63</b>

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## Inorganic Contaminants

With a few exceptions, inorganic contaminants are detected individually. Custom packages of inorganic analyses are usually required to fit the individual needs of the NPDES permittee, or to fit the history of the contaminated site requiring characterization. The Individual Analyte Price List (page 1) summarizes tests available for individual inorganics. *Please contact the laboratory for price quotations on custom analytical packages to meet your unique requirements.*

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### **Rush Analysis Rates** **CALL LAB PRIOR TO SENDING SAMPLES** **No Discounts Applied to RUSH Samples**

#### INDIVIDUAL TESTS

- 7 to 10 day Turn-Around-Time.....List + 50%  
Less than 7 days.....List + 100%

#### PACKAGE TESTS

- 10 to 14 day turn-a-round .....List + 50%  
Less than 10 day turn-a-round.....List + 100%

NOTE: Turn-a-round times are working days and begin upon arrival of sample at the laboratory

#### **NORMAL TURN-AROUND-TIME:**

**24 hours for Fecal Coliform /72 hours for Nitrate**

**10-14 working days for most individual tests**

**14-21 WORKING DAYS FOR SOC'S, IOC'S & ENVIRONMENTAL ANALYSES**

**Quantity Discounts are Available  
for Most Services**

*Contact the Laboratory  
for Price Quotations*

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## Special Lab & Field Consulting and Non-routine Analyses

SAMPLING FEE(For Routine Pick-up)....	\$60
DIRECT EXPENSES.....	\$COST + 15%
PRINCIPAL.....	\$150.00 PER HOUR
PROFESSIONAL.....	\$ 95.00 PER HOUR
LAB TECHNICIAN.....	\$ 60.00 PER HOUR
MILEAGE.....	\$ 0.55/MILE

For other testing needs which are not listed – Call for Quotation

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## Quality Assurance/Quality Control

Our Quality Assurance Officer (QAO), who operates independently and reports directly to top management, ensures that good laboratory practices are integrated into all aspects of operations at URC Analytical Services. Quality Control (QC) is built into our current Laboratory Information Management System (LIMS) and thoroughly documented in each standard operating procedure (SOP) and analytical instrumentation monitoring system. Corrective action is well documented for any deficiency observed and action is taken immediately to eliminate the source of error. QC and analytical procedures are detailed in the laboratory's QA Manual and in the Laboratory SOP Manual. These established protocols exceed those mandated by the EPA for laboratory practices.

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## Instrumentation

- GAS CHROMATOGRAPH / MASS SPECTROMETER (GCMS) – HP6890GC/5973MSD-1997
- TEKMAR 3000 PURGE & TRAP FOR GC/MS
- TWO OTHER GAS CHROMATOGRAPHS with FID, ECD
- 99 position GC auto-sampler, 16 position Purge & Trap auto-sampler
- Photodiode array (PDA) UV/Vis spectrophotometer
- One atomic absorption spectrophotometer with 50 position auto-sampler and lamps for over 30 elements; with flame, cold-vapor and graphite furnace capabilities
- One total organic carbon (TOC) analyzer
- High performance liquid chromatograph (HPLC) with photodiode array UV and fluorescence detectors
- A full complement of general and unique analytical laboratory equipment

**SPECIAL NOTES:** We cannot be responsible for holding times that are exceeded for samples delivered on weekends or after 5 p.m. on weekdays without prior notification and approval. Please call the lab if you are unsure about special containers or sampling procedures. Prices and methods are subject to change without notice.

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## In Case of Emergency or After Business Hours Call

**William F. Michalek, P.E.**  
**Laboratory Manager**  
**UMPQUA Research Company**

Office: (541) 863-5201  
Cell Phone: (541) 863-2654

**Municipal Water Suppliers:** Please call during normal office hours for a listing of private telephone numbers to include in your security plan.