# **Environmental & Analytical Services**

350 Hills Street, Suite 107, Richland, WA 99354 (509) 377-8058 FAX (509) 377-8464



ANALYSES AND PRICE LIST, JANUARY 2016 TO DECEMBER 2016

# **Drinking Water Analyses**

# **BACTERIOLOGICAL**

Parameter	<b>Analytical Method</b>	Price per sample
Coliform (Presence/Absence)	MMO-MUG	\$ 20.00
Coliform, Fecal	SM 9221 B, C, E1	40.25
Coliform, Total	SM 9221 B, C, E1	46.00

### **DISINFECTION BY-PRODUCTS**

Parameter	<b>Analytical Method</b>	Price per sample
Haloacetic Acids (HAA5)	SM 6251B	\$ 172.5
Organic Carbon, Total	SM 5310B	46.00
Total Trihalomethanes (Total THM)	EPA 524.3	126.5
Packages		
TTHM + HAA5	EPA 524.3/SM 6251B	230.00

#### **INORGANIC CONTAMINANTS**

Parameter	<b>Analytical Method</b>	Price per sample
Anions: Single Anion	EPA 300.0	\$ 20.00
Each Additional Anion		5.00
Alkalinity	SM 2320B/EPA 310.1	20.00
Ammonia	SM 4500 NH3	21.00
Asbestos	EPA 100.1/EPA 100.2	450.00
Chlorine, Total Residual	SM 4500Cl-F	15.00
Color	SM 2120B	10.00
Conductivity	SM 2510A/EPA 120.1	10.00
Cyanide, Total	SM4500CN- E	46.00
Dissolved Oxygen	SM45000	12.00
Hardness	SM 2340B/EPA 200.8	42.00
Hydrogen Sulfide	SM 4500-S <sup>2-</sup> F	20.00
Mercury: CVAA	EPA 245.7	34.50
Mercury, Low Level	EPA 1631E	92.00
Metals/Cations: Single Metal/Cation	EPA 200.8/EPA 200.7	30.00
Each Additional Metal or Cation		12.00
рН	SM 4500H/EPA 150.1	10.00
Total Dissolved Solids	SM 2540C/EPA 160.1	20.00
Turbidity	SM 2130B/EPA 180.1	15.00
Volatile Suspended Solids	SM 2540E	40.25



Drinking Water Packages		
Lead & Copper	EPA 200.8	42.00
Nitrate/Nitrite (Nitrates)	EPA 300.0	25.00
Washington Complete IOC	Various	345.00

# **ORGANIC COMPOUNDS**

Parameter	<b>Analytical Method</b>	Price per sample
Semivolatile Organics- WA List	EPA 525.2/EPA 505	258.75
EDB/DBCP	EPA 504.1	115.00
Chlorinated Pesticides/PCB's	EPA 505	175.00
Herbicides Regulated & Unregulated	EPA 8151	175.00
Carbamates Regulated & Unregulated	EPA 531	184.00
Volatile Organics	EPA 524.2	184.00

# **Waste Water Analyses**

# **BACTERIOLOGICAL**

Parameter	<b>Analytical Method</b>	Price per sample
Biological Oxygen Demand	SM 5210B	\$ 57.50
Chemical Oxygen Demand	EPA 410.4	35.00
Coliform (Presence/Absence)	MMO-MUG	20.00

# **INORGANIC CONTAMINANTS**

Parameter	<b>Analytical Method</b>	Price per sample
Anions: Single Anion	EPA 300.0	\$ 20.00
Each Additional Anion		5.00
Alkalinity, Total	SM 2320B	20.00
Each Additional		3.50
Carbonate, Bicarbonate, Hydroxide		
Ammonia	SM 4500NH3	21.00
Asbestos	100.1	270.00
Chromium, Hexavalent	SM 3500Cr	60.00
Conductivity	SM 2510B	10.00
Cyanide, Total	EPA 335.4	46.00
Dissolved Oxygen	SM5210B	17.25
Fats, Oil, & Grease (HEM), Total	EPA 1664	69.00
Hardness	EPA 130.2/SM 2340B	42.00
Hydrogen Sulfide	SM 4500 S	23.00
Mercury: CVAA	EPA 245.7/SM 7471A	34.50
Mercury, Low Level	EPA 1631E	92.00
Metals/Cations: Single Metal/Cation	EPA 200.8/EPA 200.7	30.00
Each Additional Metal or Cation		12.00
Priority Pollutant Metals	EPA 200.8	174.00



Parameter	<b>Analytical Method</b>	Price per sample
Nitrate/Nitrites (Nitrates)	EPA 300.0	25.00
Nitrogen, Total (NO <sub>2</sub> + NO <sub>3</sub> + TKN)	Various	63.25
Nitrogen, Total Kjeldahl	SM 4500NH3/SM 4500NB	40.25.
NWTPH-Dx	EPA 8015 MOD	103.50
NWTPH-Gx	EPA 8015 MOD	92.00
Organic Carbon, Total	SM 5310B/SM 5310C	46.00
Organic Halogens, Total (TOX)	EPA 9020	115.00
рН	SM 4500H	10.00
Phosphorus, Orthophosphate	SM 4500PE	20.00
Phosphorus, Total	SM 4500PE	30.00
Reactive Sulfides (solids/liquids)	SW 846 CH7	46.00
Total Dissolved Solids	SM 2540C	20.00
Total Suspended Solids	SM 2540D	15.50
Turbidity	SM 2130B	15.00
Volatile Suspended Solids	SM 2540E	40.25

# **ORGANIC COMPOUNDS**

Parameter	<b>Analytical Method</b>	Price per sample
Carbamate Pesticides	EPA 8318	184.00
EDB	EPA 8011	115.00
Organochlorine Pesticides	EPA 8081A/EPA 8270C	201.25
Organophosphorus Pesticides	EPA 8141A/EPA 8270C	184.00
PCB's	EPA 8082	143.75
Phenols	EPA 8270C	184.00
Semivolatile Organics	EPA 8270C	385.25
Volatile Organics	EPA 8260B	184.00

# **Soil Analyses**

Many of the Waste Water parameters are also available for soil. Please call to inquire about these capabilities

# **Hazardous Waste Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
TCLP		
Extraction	EPA 1311	\$ 85.00
Single Metal/Cation	EPA 6020/ EPA 1311	87.00
RCRA 8 Metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se)	EPA 6020/EPA 1311	195.50
Volatiles	EPA 8260B/EPA 1311	258.75
Semivolatiles	EPA 8270C/EPA 1311	345.00
Benzene	EPA 8260C	212.75
Cresol	EPA 8270D	281.75



Parameter	<b>Analytical Method</b>	Price per sample
Pesticides	EPA 8081A/EPA 1311	235.75
Herbicides	EPA 8151A/EPA 1311	235.75
Full List *	Various	1150.00

<sup>\*</sup>Includes RCRA 8 Metals, Volatiles, Semivolatiles, Pesticides, and Herbicides.

# **Used Oil Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
Crackle		\$ 2.50
Direct Reading Ferrography	SALI	47.50
Flash Point (Pensky Martens)	ASTM D-93	45.00
Membrane Patch Colorimetry	SALI	75.00
Oxidation/Condition by FTIR	SALI	84.00
Particle Count	SALI	30.00
Remaining Useful Life (RULER)	ASTM D-6971	75.00
Total Acid or Base Number	Titra-Lube	50.00
Viscosity, Brookfield	ASTM D-445	80.00
Viscosity, Kinnematic	ASTM D-445	50.00
Water by Karl Fisher	ASTM E-1064	60.00
Wear Metals (21) by ICP-OED	SALI	176.00

# **Material Quality Assurances**

Parameter	<b>Analytical Method</b>	Price per sample
Anions (6) by Ion Chromatography	EPA 9056	\$ 100.00
Complete Analysis with QC	Various	700.00
Embrittling Metals (11) by ICP-MS	SW 846 6020	250.00
Polymer Composition by FTIR	SALI	220.00
Preparation by Oxygen Bomb or Leach	SALI	50.00
Low Melting Point Metals	SW 846 6020	\$200.00

# **Cooling System Analyses**

Parameter	<b>Analytical Method</b>	Price per sample
Additives	Various	Call
Aerobic Plate Counts	SALI	\$ 22.00
ATP	SALI	25.00
Corrosion Coupons	SALI	Call
Sulfate Reducing Bacteria	SALI	Call
Nitrate Reducing Bacteria	SALI	30.00



# Radiological Analyses

Parameter	<b>Analytical Method</b>	Price per sample
Gamma Isotopic Analysis	SM 7120B	\$ 105.00
Gross Alpha	SM 7110B/EPA 900.0	95.00
Gross Beta	SM 7110B/EPA 900.0	95.00
Gross Alpha/Beta	SM 7110B/EPA 900.0	110.00
I-131	SM 7500I	125.00
Radium-228	EPA 904.0	95.00
Tritium	SM 7500 <sup>3</sup> H B	90.00
Uranium, Natural	EPA 200.8	30.00
Radium-226	EPA 903.1	140.00

### **Anions**

Bromide, Chloride, Fluoride, Nitrate, Nitrite, Ortho-Phosphate, Total-Phosphate, Sulfate

### **Metals/Cations**

Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gold, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Platinum, Potassium, Selenium, Silicon (dissolved only), Silver, Sodium, Sulfur, Strontium, Thallium, Tin, Titanium, Uranium, Vanadium, Yttrium, Zinc, Zirconium

# RCRA (8) Metals

Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver

# **Priority Pollutant (13) Metals**

Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Zinc

#### **Additional Information**

#### **Sample Turn Around**

Energy Northwest Environmental & Analytical Services does not guarantee a set turn-around time to anyone except those who are paying additional rush fees. Samples to be analyzed for more than one contaminant will have the turn-around time associated with the longest analysis. It is not our policy to write partial reports. Standard completion times for other samples vary according to the number and nature of the tests required, and normally ranges from 10 to 14 working days. Priority turn-around times can be provided for most tests. Contact the laboratory for priority availability and pricing.

#### **Rush Charges**

Energy Northwest Environmental & Analytical Services must be notified of and approve all rush order requests prior to receiving samples. Without prior approval, we cannot guarantee turn-around times. Although Energy Northwest Environmental & Analytical Services meets most rush requests, should a guaranteed time be missed, there will be no rush fees charged. Please call for availability and pricing before shipping rush samples. Rush projects are reported by 5 pm on the day requested and will be billed at the following rates:



7		
10 -14 Working Days		
7-10 Days	Listed Price	
6 Day	Add 25%	
5 Day	Add 35%	
4 Day	Add 50%	
3 Day	Add 60%	
2 Day	Add 75%	
Next Day	Add 100%	
Same Day	Add 200%	

#### **Analytical Methods**

ASTM: American Society for Testing and Materials ASTM Standards

EPA: Environmental Protection Agency Methods and Guidance for Analysis of Water

NWTPH: Washington State Department of Ecology methods

SALI: Energy Northwest Supplemental Analytical Laboratory Instructions SM: Standard Methods for the Examination of Water and Wastewater

SW 846: Environmental Protection Agency Test Methods for Evaluating Solid Waste Physical/Chemical

Methods

The methods listed are those most commonly used, selected to conform to regulatory requirements and accepted scientific practices. An individual sample may contain materials interfering with a specific method listed above and preventing determination of the tested parameter. In these cases, with approval of our customers our analysts can usually provide accurate results using an alternate method. Any alternate methods used will be listed on the sample report.

#### **Subcontracted Analyses**

The Energy Northwest Environmental & Analytical Services offers sample tracking, shipping, results reporting and invoicing for several analyses that are not cost-effective to perform in our facility. Only cooperating laboratories with appropriate accreditations are used, and they have been selected based on both price and quality of service. In periods of unusually high sample loads or instrumentation difficulties, our cooperating laboratories also may perform some analyses we usually provide.

#### **Additional Capabilities**

Along with the listed chemical tests, we offer other specialized services. Environmental sampling, identification of unknowns, analysis of non-standard chemicals or matrices, thermal testing, individual agricultural chemicals and analytical method development are some of the available services. Call to request a quote for any of your requirements not included in this price list.

#### Note on our commitment to the environment

Energy Northwest is committed to protecting the environment for current and future generations. As part of that commitment, we have developed, implemented, and maintain a comprehensive Environmental Management System (EMS). Our EMS was designed to meet the rigorous requirements of the globally recognized International Organization for Standardization (ISO) 14001 standard with additional emphasis on compliance, pollution prevention, and communication.

