Environmental Chemistry Laboratory

Client Services Manual

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Utah Public Health Laboratory

UTAH DEPARTMENT OF HEALTH

Quick Links

Basic Information
Key Personnel
Use Of This Client Services Manual
General Lab Practices And Policies
Summary Of Federal Acts
- Clean Water Act (CWA)
- Resource Conservation And Recovery Act (RCRA)
- Safe Drinking Water Act (SDWA)

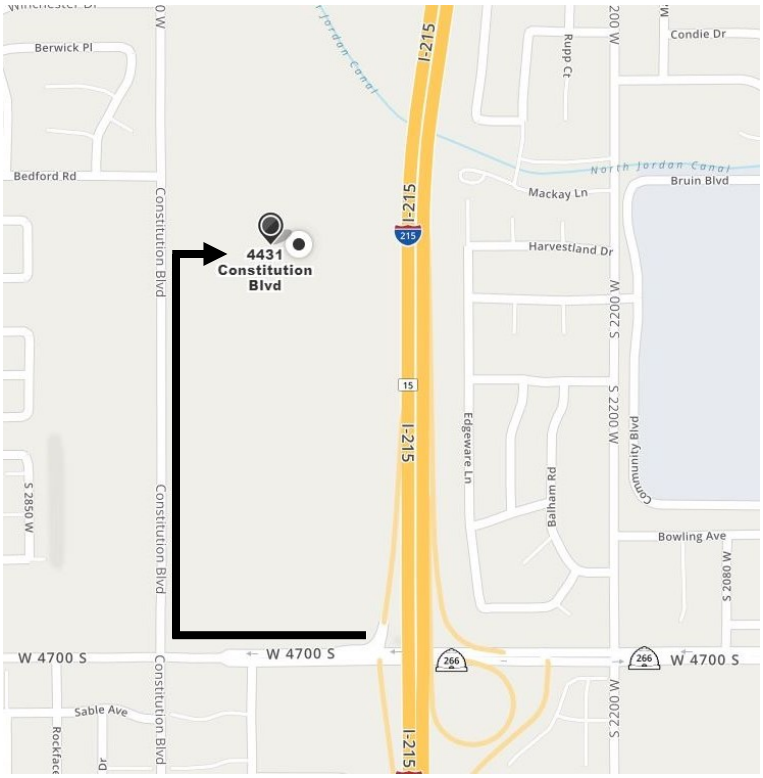
Sampling Request Instructions
Test Request Forms
Chain Of Custody (COC)
Agency Codes, Cost / Project Codes
Sample Source Codes / Sample Type Codes

Analytical Services

- Inorganic Chemistry
- Metals
- Organic Chemistry
  - Pass-Through Organic Testing (Outside Laboratory)
- Environmental Water Microbiology
- Program Specific Indexes
- General Index

BASIC INFORMATION

Address: Unified State Laboratories:
Public Health
4431 S 2700 W
Taylorsville, UT 84129-8600
Phone: (801) 965-2400
FAX: (801) 969-3704
Website: https://uphl.utah.gov



Laboratory business hours:

Mon. – Fri., 8:00 am – 5:00 pm

After hours, holidays, and emergency:

1-888-374-8824

To schedule sample testing:

801-965-2400 or 801-965-2405

KEY PERSONNEL

CHEMISTRY PROGRAM

Boyd Neilson	Inorganic Section Supervisor
Kyle Ashby, PhD	R&D Program Manager
Keith Henderson	Quality Assurance Manager
Jackie Patel	Chemical Threat Coordinator
David Dick	Sample Receiving

LABORATORY

Andy Rohrwasser, PhD, MBA	Laboratory Director
Alessandro Rossi, PhD	CLIA Director
Robert Paul	Finance Manager
Brent Curtis	Lab Operations Manager

USE OF THIS CLIENT SERVICES MANUAL

This manual is designed to provide a resource for sample collection and available testing information. Its contents are not to be used for regulatory purposes other than providing proper sample collection and preservation information.

To find a specific test, refer to the Table of Contents or the Index toward the end of the manual. There is also a Program Specific Index at the end of the manual for the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA), or the Resource Conservation and Recovery Act (RCRA). Information regarding special tests may also be located toward just before the Index sections. The Table of Contents is organized alphabetically by contaminant within each analytical section. Follow the page number to locate more details about each contaminant. The index located at the end of the manual lists each test alphabetically along with their method numbers. Program specific indices are organized by the specific program, giving the analytes and tests codes.

Once a contaminant has been selected, specific information and testing instructions are located on the page dedicated to the test. The section (organic, inorganic, etc.) is listed at the top of the page. Next, the name and test codes are listed. Analytes being tested for and, if relevant, the grouping of the chemical will follow. To finish the listing, there are the instructions for collection, required types and number of bottles, preservative and handling information, and method technology. Utilize this information to gain a greater understanding of the specific test that is associated with each contaminant.

All information should be checked and confirmed to be accurate before samples are submitted for testing. Instructions should be followed as stated and samples returned to the lab for processing.

GENERAL LAB PRACTICES AND POLICES

Our laboratory is responsible for the receipt of samples and testing of chemicals and environmental microbial contaminants in drinking water, wastewater, environmental soils and hazardous waste. Testing is done to ensure compliance with health andsafety standards established by Federal and Utah State agencies. Services are provided to Utah DEQ, public water and wastewater utilities, local health departments, as well as other state and federal agencies.

Labeled sample collection materials such as water bottles, glass vials, and solids containers may be obtained from the laboratory. The laboratory tests each lot of containers to ensure they are free of contamination. The tested lot number appears on each container label.

A complete test sample submission form (provided when containers are picked up and also included at the end of this manual) should accompany all samples. Tests, which are needed by the client but are not performed in our laboratory, will be subcontracted to a commercial laboratory with approval from the client.

Test results are provided to the submitting client, to other individuals as authorized by the submitting client, and to state and/or federal regulatory agencies as required by law. Fees for laboratory services will be charged to the submitting client.

SUMMARY OF FEDERAL ACTS

The Environmental Chemistry Laboratory provides testing to supply the Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), and the Safe Drinking Water Act (SDWA).

CLEAN WATER ACT

The Clean Water Act (CWA) is a federal law, which regulates discharges into the navigable waters of the nation. The Utah Division of Water Quality (DWQ) within the Department of Environmental Quality's mission is to protect, maintain and enhance the quality of Utah's surface and underground waters for appropriate beneficial uses; and to protect the public health through eliminating and preventing water related health hazards which can occur as a result of improper disposal of human, animal, or industrial wastes while giving reasonable consideration to the economic impact.

RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act (RCRA) is a federal law which defines solid and hazardous wastes and defines requirements for their proper disposal. Both the Utah Division of Waste Management and Radiation Control (DWMRC) and the Utah Division of Environmental Response and Remediation (UDERR) within the Department of Environmental Quality (UDEQ) protect public health and the environment by ensuring proper management of solid and hazardous wastes and through cleanup of chemically contaminated sites and proper management of underground storage tanks.

SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) is a federal law which applies to all public water systems. Water systems on tribal lands are regulated by EPA Region 8 out of Denver, CO. All other public water systems are regulated by the Utah Division of Drinking Water (DDW) within the Utah Department of Environmental Quality. DDW's mission is to protect the public against waterborne health risks through education, assistance, and oversight.

The Unified State Laboratories: Public Health is approved to conduct testing of water collected from public water systems according to EPA and State rules. It is not necessary to know the names of each analyte to be requested, but general categories of analytical testing are listed below and can be selected on analysis request forms (see last pages of this manual).

Our lab is endorsed by the EPA to carry out tests for the contaminants that are outlined by these three federal regulations. In the back index, you can look up a contaminant by its specific act and then alphabetically by analyte. There are also method numbers for each analyte and a page number.

SAMPLING REQUEST INSTRUCTIONS

To help reduce delays in processing your samples, please fill out one test form for each sample site. One sample site may have multiple bottles, but one form cannot have multiple collection sites. Complete the collection information on all of the bottles that are submitted and place completed form in a resalable bag. The Division of Drinking Water has requested some new fields on the forms—Facility ID and Sampling Point ID. If you are not certain what to put in those fields, please contact The Division of Drinking Water. Also, when making a sample delivery, please include a telephone number that is reachable 24-28 hours after sample has been received.

Please make sure you are using our current shipping address to prevent extra courier charges and delays in your shipment as well as to ensure that your environmental samples get delivered to the proper location once they are received at the lab, use one of these two addresses listed below. If the samples need to go to someone's attention at the lab, please contact them prior to shipping so they can coordinate with sample receiving.

Address options for shipping environmental samples:

FedEx or UPS	USPS
Utah Public Health Laboratory Attn BCES Sample Receiving 4431 S 2700 W Taylorsville, UT 84129	Utah Public Health Laboratory Attn BCES Sample Receiving PO Box 144300 Salt Lake City, UT 84131-9988
Utah Public Health Laboratory 4431 S 2700 W Rm 149 Taylorsville, UT 84129	Utah Public Health Laboratory Rm 149 PO Box 144300 Salt Lake City, UT 84131-9988

For questions, please contact:

Environmental Chemistry Sample Receiving
Utah Public Health Laboratory
4431 S 2700 W
Taylorsville, UT 84129
801-965-2405

Business hours are Monday-Friday from 8:00 am to 5:00 pm.

TEST REQUEST FORMS

When filling out test request forms the following fields of information must be completed for proper identification of samples at time of receipt:

- **System Name / Agency Name**
- **System Number / Agency Code**
- **Cost Code / Project Code**
- **Contact Information** (phone number is required)
- **Person Submitting Samples** (point of contact for clarifications)
- **Billing Information** (if submitting samples for the first time or if updates are needed)

If you are unsure of your system name and number or agency code, please contact the laboratory prior to sample submission. Or, for drinking water samples contact the Division of Drinking Water at 801-536-4200. If you do not have a system number and have not submitted samples to the laboratory before, a system number will be assigned at time of sample receipt.

Short lists of Agency Codes, Cost Codes / Project Codes, Sample Source Codes, and Sample Type Codes are listed below. Source andType codes may be recorded in the comments field. If you do not know which cost code or project code applies to your samples, please contact the laboratory.

CHAIN OF CUSTODY

When submitting chain of custody samples, please complete the following steps to ensure proper preservation of sample integrity:

- **Place Seals on Sample Container Lid or Cap or over the cooler.** (must be initialed and dated at time of collection)
- **Identify Continuous Sample Possession** (signatures for dispatch, courier, relinquish, and soforth) located at bottom of chain-of-custody form
- **Verify LaboratoryReceipt** (obtain copy of form when signed by DLS staff at time of receipt)

Agency Codes		Cost Codes / Project Codes
UDAQ	Air Lead High Volume Study	731
UDWQ	Clean Lakes Project	351
UDWQ	Ground Water Oversight	353
UDWQ	Ground Water Permits	352
UDAQ	Utah Division of Air Quality	321
UDDW	Utah Division of Drinking Water	361
UDWMRC	Utah Division of Waste Management & Radiation Control	365/465
UDERR	Utah Division of Environmental Response & Remediation	367
UDWQ	Utah Division of Water Quality (General)	350
	Public Drinking Water Systems, Billing Direct to Customer	361B
	Alliance Drinking Water Systems	366
BRHL	Bear River District Health Department	900
CUHR	Central Utah Public Health Department	900
DCHD6	Davis County Health Department	900
SLWQ	Salt Lake Valley Health Department	900
SEHP	Southeast Utah Public Health Department	900
SWHC	Southwest Utah Public Health Department	900
SCHD1	Summit County Health Department	900
TCHD	Tooele County Health Department	900
UCHD3	Utah County Health Department	900
WCHD3	Wasatch County Health Department	900
WMHD9	Weber-Morgan Health Department	900
	General Testing, Billing Direct to Customer	901

Sample Source Codes

1	Spring
2	Well
3	Stream
4	Lake
7	Pipe/Effluent
20	Influent
22	Primary Clarifier
24	Trickling Filter
26	Secondary Clarifier
30	Above UV
31	Below UV
32	Injection Well
33	Bat Point
14	Other

Sample Type Codes

4	Grab Sample	27	Below Thermocline
8	8 hr Composite	28	Indicate Depth
9	24 hr Composite	29	Lake Bottom
15	6 hr Composite	30	Sludge
2	Lake Surface	40	Sediment
22	Lake Indicate Depth	50	Soil
23	Lake Above Thermocline	60	Air
24	Lake Indicate Depth	70	Tissue
25	Lake Mid Depth	80	Blood
26	Indicate Depth	90	Urine

ANALYTICAL SERVICES

Inorganic Chemistry

Alkalinity 13
Ammonia 14
Biological Oxygen Demand (BOD, CBOD, SBOD, SCBOD) 15
Bromate 16
Bromide 16, 17
Chlorate 16
Chloride 17
Chlorite 16
Color 18
Conductivity 19
Corrosivity 20
Cyanide 21
Fluoride 22
Nitrate + Nitrite 23
Nitrite 23
Nitrogen, Total 24
Odor 25
Perchlorate 26
pH 27
Phosphate 28
Silica 29
Sulfate 30
Sulfide 31
Solids - Dissolved (TDS), Suspended (TSS), Volatile (TVS), Settleable (SS) 32
Turbidity 33
Inorganic Testing Panels & Analytical Groupings
- Annual Inorganics and Metals (18 Parameters) 34
- New Drinking Water Source (46 Parameters) 35
- Chemistry Types (Analytical Groupings) 36
- Nutrients, Total and Dissolved (Analytical Groupings) 37

Metals
Organic Chem
Env Water Micro
Indexes

ANALYTICAL SERVICES

Metals

Analytical Method for Metals 38
Digestion Methods for Metals (non-drinking water) 38
Metals
- Aluminum (Al)
- Antimony (Sb)
- **Arsenic (As)** 39
- Barium (Ba)
- Beryllium (Be)
- Cadmium (Cd)
- Calcium (Ca)
- Chromium (Cr)
- Cobalt (Co)
- Copper (Cu)
- Iron (Fe)
- Lead (Pb)
- Magnesium (Mg)
- Manganese (Mn)
- **Mercury (Hg)** 40
- Molybdenum (Mo)
- Nickel (Ni)
- Potassium (K)
- Selenium (Se)
- Silver (Ag)
- Sodium (Na)
- Strontium (Sr)
- Thallium (Tl)
- Tin (Sn)
- Vanadium (V)
- Zirconium (Zr)

Chromium-VI 41
Lead & Copper 42
Lead (Air Samples) 43
Hardness 44
Selenium Hydride 45
Metals Testing Panels & Analytical Groupings
- Annual Inorganics and Metals (18 Parameters) 34
- New Drinking Water Source (46 Parameters) 35
- Toxic Characteristic Leaching Procedure (TCLP-Metals) 46
- Chemistry Types (Analytical Groupings) 36
- Metals, Total and Dissolved (Analytical Groupings) 47

Inorganic Chem
Organic Chem
Env Water Micro
Indexes

ANALYTICAL SERVICES

Organic Chemistry

Chlorophyll-A & Pheophytin-A 48
Cyanotoxins (Anatoxin-a, Cylindrospermopsin, Microcystins) by ELISA & qPCR 49
Haloacetic Acids (HAAs) 50
Organic Carbon, Total (TOC) & Dissolved (DOC) 51
Organic Constituents, UV-Absorbing (UV) 52
Periphyton 53
Trihalomethanes (THMs) & Maximum Potential THMs 54

Organic Pass-Through Tests – Under this current version of the Client Services Manual, certain Organic Chemistry tests, when requested, will be passed through to an outside laboratory. The tests shown below will be passed through and the customer will be billed the amount invoiced from the outside laboratory. Refer to the specific test for sampling information. Sample collection bottles may be obtained from the Utah Public Health Laboratory.

BTEXN 55
Carbamates 56
Geosmin and MIB 57
Herbicides 58
Oil and Grease 59
Pesticides and SVOCs 60
Polychlorinated Biphenyls (PCBs) & Organochlorine Pesticides 61
Surfactants 62
Total Petroleum Hydrocarbons (TPH) 63
Toxic Characteristic Leaching Procedure (TCLP-Organics) 64
Volatile Organic Compounds (VOCs) 65

Inorganic Chem
Metals
Env Water Micro
Indexes

ANALYTICAL SERVICES

Environmental Water Microbiology

Heterotrophic Plate Count (HPC) 66
Legionella 67
Total Coliforms/E.*coli*. 68

INDEXES

Program Specific: Clean Water Act (CWA) 69
Clean Water Act (CWA) – EPA 608-PCB/OcPest 71
Clean Water Act (CWA) – EPA 624-VOC 73
Clean Water Act (CWA) – EPA 625-SVOC 75
Program Specific: Resource Conservation & Recovery Act (RCRA) 78
Resource Conservation & Recovery Act (RCRA) – 8151-Herbicides 79
Resource Conservation & Recovery Act (RCRA) – 8260-VOC 80
Resource Conservation & Recovery Act (RCRA) – 8270-SVOC 82
Program Specific: Safe Drinking Water Act (SDWA) 85
Safe Drinking Water Act (SDWA) – EPA 524.2-VOC 88
Safe Drinking Water Act (SDWA) – EPA 525.2-SVOC 91
General 93

Inorganic Chem
Metals
Organic Chem
Env Water Micro

Inorganic Chemistry

Name: Alkalinity
Test: SM 2320B-ALK

Application: Drinking Water, Surface Water

Analytes: Alkalinity
Carbonate Solids
Carbonate
Bicarbonate (BICD)
Carbon Dioxide
Hydroxide

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Alkalinity – unpreserved plastic bottle
1L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab**. Sample must be analyzed within 14 days of collection.

Method Technology: pH Titration and Calculation

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Ammonia [NH_3]
Test: EPA350.1-NH3

Groupings: Total Nutrients
Application: Drinking Water, Surface Water

Analytes: Ammonia

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 500 mL Nutrient Analysis – plastic bottle

Preservative: H_2SO_4 to pH <2, refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample must be analyzed within 28 days after collection.

Method Technology: Distillation technique followed by Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Biological Oxygen Demand (BOD)
Test: SM 5210B-BOD, CBOD, SBOD,SCBOD

Application: Drinking Water, Surface Water, Waste Water

Analytes: BOD5 (Biological Oxygen Demand)
CBOD (Carbonaceous BOD)
SBOD (Soluble BOD)
SCBOD (Soluble Carbonaceous BOD)

Note: **Please take into account that the completion of the 5 day testing duration cannot fall on a weekend or holiday.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 2 L BOD – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 48 hours after collection and will be completed 5 days after testing begins.

Method Technology: Dissolved Oxygen Reduction over 5 days at 20°C

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Bromate [BrO_3], Bromide [Br], Chlorate [ClO_3], Chlorite [ClO_2]
Test: EPA 300.1- BRO3, -BRIC, -CLO3, -CLO2

Groupings: Inorganic Disinfection By-Products

Application: Drinking Water, Surface Water

Analytes: Bromate
Bromide
Chlorate
Chlorite

Note: Prior to collection, analysis should be scheduled with the laboratory at (801) 965-2400

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 100 mL Bromate, Chlorate, Chlorite – plastic bottle

Preservative: 25 mg Ethylenediamine, refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab**. Sample testing must begin within 28 days after collection , except for Chlorite and Bromate which must begin within 14 days.

Method Technology: Ion Chromatography

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Bromide [Br], Chloride [Cl]
Test: EPA 300.1-BRIC, EPA 300.0-CLIC, or EPA 325.2-CL

Groupings: Disinfectants

Application: Drinking Water (300.1-BRIC, 300.0-CLIC)
Surface Water (325.2-CL)

Analytes: Bromide
Chloride

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Bromide & Chloride – unpreserved plastic bottle
120 mL Sulfate – unpreserved plastic bottle (also applicable)
1 L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Ion Chromatography and Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Color
Test: EPA 110.2-L-COLR

Groupings: New Drinking Water Source
Application: Drinking Water, Surface Water

Analytes: Color

Note: **Prior to collection of Color, analysis must be scheduled at (801) 965-2400.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 250 mL Color – plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 48 hours after collection.

Method Technology: Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Conductivity
Test: EPA 120.1-COND

Groupings: Total Chemistry
Application: Total & Filtered Metals
Corrosivity
Radiologic Testing

Analytes: L-Specific Conductance

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Conductivity – unpreserved plastic bottle
1 L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Specific Conductance

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Corrosivity (Langlier Index)
Test: SM 2330B-CORR

Note: **Corrosivity requires testing of Calcium, TDS, Hardness, Alkalinity, and F-pH (field measured)**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container. If preservative is present, be sure not to over fill to prevent loss of preservative

Required Containers/Volume: 250 mL Total Metals – plastic bottle
1 L Total Chemistry – plastic bottle

Preservative: For Total Metals bottle, add HNO3 to pH <2. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at** lab. Total Metals sample testing must begin within 180 days after collection. Total Chemistry sample testing must begin within 48 hours after collection.

Method Technology: Calculation: Calcium, TDS, Hardness, Alkalinity, and F-pH levels

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Cyanide [CN]
Test: EPA 335.4-CNCL

Application: Drinking Water, Surface Water, Groundwater

Analytes: Cyanide

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 500 mL Cyanide – plastic bottle

Preservative: 2g NaOH to pH >12, ascorbic acid in the presence of residual chlorine. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab**. Sample testing must begin within 14 days after collection.

Method Technology: Flow Injection Colorimetry

Preparation Method: Distillation required before analysis

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Fluoride [F]
Test: EPA 300.0-FLIC

Application: Drinking Water, Surface Water

Analytes: Fluoride

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Fluoride – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days of sample collection.

Method Technology: Ion Chromatography

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Nitrate + Nitrite [NO_3+NO_2], Nitrite [NO_2]
Test: EPA 353.2-NO2+NO3, EPA 353.2-NO2

Groupings: Total Nutrients
Filtered Nutrients

Application: Drinking Water, Surface Water

Analytes: Nitrate/Nitrite (NO_3+NO_2)
Nitrite (NO_2)

Note: **Prior to collection of Nitrate and Nitrite, analysis must be scheduled at (801) 965-2400.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 120 mL Nitrate – plastic bottle
500 mL Total Nutrients – plastic bottle (also applicable)
120 mL Nitrite – unpreserved plastic bottle

Preservative: **Nitrate** – H_2SO4 to pH <2, refrigerate or store on ice. Do not allow to freeze.
Nitrite – No preservative, refrigerate or store on ice. Do not allow to freeze.

Handling: Nitrate – **Recommend next day receipt at lab.** Sample testing must begin within 28 days after collection.
Nitrite – **Recommend next day receipt at lab.** Sample testing must begin within 48 hours after collection.

Method Technology: Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Nitrogen, Total
Test: SM 4500N (Lachat)

Groupings: Filtered Nutrients
Application: Drinking Water, Surface Water

Analytes: Nitrogen

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative

Required Containers/Volume: 250 mL Filtered Nutrient-plastic bottle

Preservative: H_2SO_4 to pH <2, refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab**. Sample testing must begin within 28 days of sample collection.

Method Technology: Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Odor
Test: EPA 140.1-ODOR

Groupings: New Drinking Water Source
Application: Drinking Water, Surface Water

Analytes: Odor (Threshold Odor Number, TON)

Note: **Prior to collection of Odor, analysis must be scheduled at (801) 965-2400.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Odor – amber glass bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 24 hours after sample collection.

Method Technology: Odor Threshold (Consistent Series)

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Perchlorate [CLO_4]
Test: EPA 314.0-CLO4

Application: Drinking Water

Analytes: Perchlorate
Conductivity

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Perchlorate – unpreserved plastic bottle
1L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Ion Chromatography

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: pH
Test: EPA 150.1-PH

Groupings: Total Chemistry
Application: Drinking Water, Surface Water

Analytes: L-pH (L = Lab Measured)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 24 hours after sample collection.

Method Technology: Electrometric Measurement

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Phosphate [PO_4]

Test: EPA 365.1-TPO4, EPA 365.1-D-TP

Groupings: Total Nutrients
Dissolved Nutrients

Application: Drinking Water, Surface Water

Analytes: Phosphate, Total (TPO4)
Phosphate, Dissolved (D-TP)
Phosphate, ORTHO

Note: **Prior to collection of Phosphate (Ortho), analysis must be scheduled with the laboratory at (801) 965-2400.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 500 mL Nutrient Analysis – plastic bottle

Preservative: H_2SO_4 to pH <2, refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 28 days after sample collection. For ORTHO-Phosphate, contact laboratory.

Method Technology: Flow Injection Colorimetry

Preparation Method: Digestion technique

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Silica [SiO_2]
Test: EPA 370.1-SIO2

Application: Drinking Water, Surface Water

Analytes: Silica (SiO_2)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Sulfate [SO_4]
Test: EPA 300.0-SO4C, EPA 375.2-SO4

Application: Drinking Water (300.0), Surface Water (375.2)

Analytes: Sulfate

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Sulfate – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Ion Chromatography and Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Sulfide [S]
Test: EPA 376.2-SULI

Application: Drinking Water, Surface Water

Analytes: Sulfide

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 120 mL Sulfide – plastic bottle

Preservative: 3 drops Zinc Acetate and NaOH to pH >9. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 7 days after sample collection.

Method Technology: Flow Injection Colorimetry

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Solids
Test: SM 2540C-TDS, SM 2540D-TSS, EPA 160.4-TVS, SM 2540F-SS

Application: Drinking Water, Surface Water

Analytes: Solids, Total Dissolved (TDS) – filterable
Solids, Total Suspended (TSS) – non-filterable
Solids, Total Volatile (TVS)
Solids, Settleable (SS)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 7 days after collection, except SS which is 48 hours.

Method Technology: Gravimetric detection

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Turbidity

Test: EPA 180.1-TURB

Groupings: Total Chemistry
Water Treatment Technique

Application: Drinking Water, Surface Water

Analytes: Turbidity (NTU)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 48 hours after sample collection.

Method Technology: Nephelometric Absorbance

Back to Analytical Services Table to Contents

Metals & Inorganic Chemistry

Name: Annual Inorganics & Metals (18 Parameters)
Test: Type 9 (Primary Inorganics & Metals Chemistry)

Analytes:

Cyanide	Fluoride
Turbidity (NTU)	Solids (TDS)
T-Arsenic	T-Barium
T-Beryllium	T-Cadmium
T-Chromium	T-Copper
T-Lead	T-Mercury
T-Nickel	T-Selenium
T-Antimony	T-Thallium
T-Sodium	Sulfate

Instructions for Collection: Allow sample tap to flow for a few minutes until water temperature stabilizes. Slowly fill containers to top, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle
250 mL Total Metals – plastic bottle
500mL Cyanide – plastic bottle

Preservative: Refrigerate or store on ice, Do not allow to freeze.

Handling: **Recommend same day receipt at lab. Must be received at lab within 24 hours of collection time.**

Method Technology: Nephelometric, Gravimetric, Flow Injection Colorimetry, Ion Chromatography, ICP, and ICPMS

Back to Analytical Services Table to Contents

Metals & Inorganic Chemistry

Name: New Drinking Water Source (46 Parameters)
Test: Type 7 (Total Inorganics & Metals Chemistry)

Analytes

Odor (TON)	Solids (TDS)	T-Arsenic
Surfactant	Solids (TSS)	T-Barium
Alkalinity	Turbidity (NTU)	T-Beryllium
Bicarbonate	Cyanide	T-Boron
Carbon Dioxide	Sulfate	T-Cadmium
Carbonate	Ammonia	T-Chromium
Carbonate Solids	NO2+NO3	T-Copper
Chloride	T-Phosphate	T-Iron
Corrosivity	Color	T-Lead
Fluoride	D-Calcium	T-Manganese
Hardness	D-Magnesium	T-Mercury
Hydroxide	D-Potassium	T-Selenium
L-pH or F-pH	D-Sodium	T-Silver
L-Specific Conductivity	T-Aluminum	T-Thallium
Silica	T-Antimony	T-Zinc
		Total Organic Carbon (TOC)

Note: Prior to collection of New Drinking Water Source samples, analysis must be scheduled with the laboratory at (801) 965-2400.

Instructions for Collection: Allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill to top of bottles, be sure not to over fill to prevent loss of preservatives.

Required Containers/Volume:
1 L Odor – amber glass bottle
1 L Surfactant – amber glass bottle
1 L Total Chemistry – unpreserved plastic bottle
500 mL Cyanide – plastic bottle
500 mL Nutrient Analysis – plastic bottle
250 mL Color – plastic bottle
*250 mL Filtered Metals –plastic bottle
*250 mL Total Metals – plastic bottle
200 mL TOC – amber glass bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze. **Metals Preserve with HNO3 to pH <2.**

Handling: **Recommend same day receipt at lab. Must be received at lab within 24 hours of collection time.**

Method Technology: Electrometric, Nephelometric, Gravimetric, Titration, Flow Injection Colorimetry, Ion Chromatography, ICP, and ICPMS

Back to Analytical Services Table to Contents

Metals & Inorganic Chemistry

Name: Total Chemistry (Analytical Groupings)
Test: Type 2, Type 3, Type 9

Type 2 or 3

Type 9

L = Lab Measured
D = Dissolved
T = Total

Type 2	Type 3	Type 9
pH	pH	Cyanide
Solids (TSS)	Solids (TSS)	Turbidity (NTU)
Bicarbonate	D-Calcium	T-Arsenic
Carbon Dioxide	D-Magnesium	T-Beryllium
Carbonate	D-Potassium	T-Chromium
Chloride	Bicarbonate	T-Lead
Hydroxide	Carbon Dioxide	T-Nickel
Sulfate	Carbonate	T-Antimony
Alkalinity	Chloride	T-Sodium
Turbidity (NTU)	Hydroxide	Fluoride
Conductivity	Sulfate	Solids (TDS)
Solids (TDS)	Alkalinity	T-Barium
	Hardness	T-Cadmium
	Turbidity (NTU)	T-Copper
	Conductivity	T-Mercury
	Solids (TDS)	T-Selenium
	Carbonate Solids	T-Thallium
		Sulfate

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle
1 L Total Chemistry – unpreserved plastic bottle
250 mL Total Metals – plastic bottle
500mL Cyanide – plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 48 hours after sample collection.

Method Technology: Electrometric, Nephelometric, Gravimetric, Titration, Flow Injection Colorimetry, Ion Chromatography, ICP, and ICPMS

Back to Analytical Services Table to Contents

Inorganic Chemistry

Name: Nutrients, Total & Dissolved (Analytical Groupings)
Test: Total: Type 2, Type 3, Type 6
Dissolved: Type 9

Type 2, 3 or 6

Type 9

Type 2
Ammonia
Phosphate (T-PO_4)

Type 3
Ammonia
Phosphate (T-PO_4)
Nitrate+Nitrite (NO_3+NO_2)

Type 6
Phosphate (T-PO_4)
Nitrate+Nitrite (NO_3+NO_2)

Type 9
Phosphate (D-PO_4)
D-Nitrate+Nitrite (NO23)
D-Total Nitrogen

Note: **To test for Dissolved analytes, field filtration must be done at time of sample collection and Filtered-Nutrients bottle used.**

D = Dissolved
T = Total

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 500 mL Nutrient Analysis – plastic bottle
250 mL Filtered Nutrients – plastic bottle

Preservative: H_2SO_4 to pH <2. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Flow Injection Colorimetry

Preparation Method: Digestion Techniques (except for Nitrate + Nitrite)

Back to Analytical Services Table to Contents

Metals

Name: Analytical Methods for Metals

EPA 200.8	Drinking Water and Groundwater
EPA 200.7	Drinking Water, Groundwater, and Wastewater
EPA 6010	Wastes (SW 846), Water, Soil
EPA 6020	Wastes (SW 846), Water, Soil
EPA 245.1	Mercury in Water (Prep Method 245.1)
EPA 7471B	Mercury in Soil (Prep Method 7471B)
SM 3114C	Selenium by Hydride Generation/AAS

Name: Digestion Methods for Metals (Non-Drinking Water)

EPA 3010A	TCLP & Total Metal Sample Digestion
EPA 200.8	Waste water, Groundwater and Drinking Water
EPA 3050B	Solid and Hazardous Wastes

Note: Drinking water samples do not require digestion unless water exceeds turbidity of 1 NTU.

Back to Analytical Services Table to Contents

Metals

Name: Arsenic [As]
Test: EPA 200.8-T-AS
EPA 200.8-D-AS

Groupings: Metals
Application: Arsenic Rule, Drinking Water, Surface Water

Analytes: Arsenic (T-As, Total)
Arsenic (D-As, Dossolved)

Instructions for Collection: Allow sample tap to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 250 mL Total Metals – plastic bottle

Preservative: HNO_3 to pH <2, refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample must be analyzed within 6 months after collection.

Method Technology: Digestion technique followed by ICPMS detection

Back to Analytical Services Table to Contents

Metals

Name: Mercury [Hg]
Test: EPA 245.1-T-HG, 245.1-D-HG, EPA 7471B (T-HG or D-HG)

Groupings: Metals
Application: Drinking Water, Surface Water, Soil, Solids, Sludge

Analytes: Mercury (T-Hg, Total)
Mercury (D-Hg, Dissolved)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: **Water** – 250 mL Total Metals – plastic bottle
Soils, solids, sludge – 4 oz. glass container with Teflon-lined lid

Preservative: HNO_3 to pH <2. Refrigerate or store on ice (4-6°C). Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after collection. If sample is not preserved, sample testing must begin within 24 hrs.

Method Technology: Cold Vapor AA detection

Preparation Method: Digestion Technique

Back to Analytical Services Table to Contents

Metals

Name: Chromium-VI [Cr^{6+}]
Test: EPA 218.7

Application: Drinking Water, Surface Water

Analytes: Chromium-VI (Hexavalent)

Note: **Prior to collection of Chromium-VI samples, analysis must be scheduled at (801) 965-2400.**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 120 mL Chromium-VI – plastic bottle

Preservative: 1 mL of $(NH_4)_2SO_4/NH_4OH$ to 100 mL. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 14 days after sample collection.

Method Technology: Ion Chromatography

Back to Analytical Services Table to Contents

Metals

Name: Lead & Copper
Test: EPA 200.8-Type 8 Metals (T-PB & T-CU)

Groupings: Metals
Application: Corrosion Control Assessment, Drinking Water

Analytes: Lead (T-Pb, Total)
Copper (T-Cu, Total)

Instructions for Collection: Allow sample tap to flow for a few minutes until water temperature stabilizes. Slowly fill to line.

Required Containers/Volume: 1 L Lead and Copper – plastic bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze. Sample must be preserved with HNO_3 to pH <2 within 14 days after sample collection.

Handling: **Recommend next day receipt at lab.** If preserved within 14 days after sample collection, testing must begin within 6 months.

Method Technology: ICPMS Detection

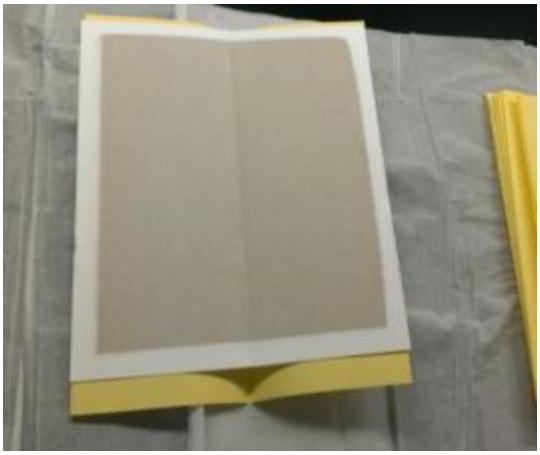
Preparation Method: Digestion Technique

Back to Analytical Services Table to Contents

Metals

Name: Lead (Air Samples)
Test: EPA 200.8-T-PB

Application: Air Quality



Analytes: Lead (Air Sample Particulate Analysis)

Instructions for Collection: Air monitoring technique to capture particulates using filter paper.

Handling: Store filtered samples in separate plastic bags.

Method Technology: ICPMS Detection

Preparation Method: Filter Digestion

Back to Analytical Services Table to Contents

Metals

Name: Hardness (Total Hardness as $CaCO_3$)
Test: HARD

Application: Drinking Water, Surface Water

Analytes: Calcium
Magnesium

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 250 mL Total Metals – plastic bottle

Preservative: HNO_3 to pH <2. Refrigerate or store on ice. Do not allow to freeze.

Handling: Store filtered samples in plastic bag

Method Technology: ICPMS Detection of Ca & Mg. Calculation: Based on Calcium and Magnesium levels

Preparation Method: Digestion Technique if turbidity is >1 NTU.

Back to Analytical Services Table to Contents

Metals

Name: Selenium by Hydride Generation
Test: SM 3114C (modified)

Groupings: Metals

Application: Drinking Water, Surface Water, Grounwater

Analytes: Selenium Hydride

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 250 mL Metals – plastic bottle

Preservative: Add HNO_3 to pH <2. Refrigerate or store on ice. Do not allow to freeze

Handling: **Recommend next day receipt at lab. Sample testing must begin within** 180 days after sample collection.

Method Technology: Hydride AAS

Preparation Method: Digestion Technique

Back to Analytical Services Table to Contents

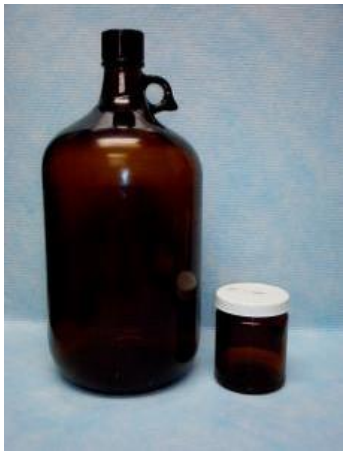
Metals

Name: Toxic Characteristic Leaching Procedure (TCLP) RCRA

Test: TCLP-Metals, 1311-TCLP, 1332-TCLP

Groupings: Metals Testing (RCRA)

Note: **Prior to collection of 1311-TCLP (water and soil) or 1332-TCLP (oil), analysis must be scheduled at (801) 965-2400.**



*Other metals may be analyzed, but must be specified on test request form. For complete list of metals see indexes or contact us 801-965-2400.

HW	RCRA 8	RCRA 8+4	RCRA 8+4+6
D004	T-Arsenic	T-Arsenic	T-Arsenic
D005	T-Barium	T-Barium	T-Barium
D006	T-Cadmium	T-Cadmium	T-Cadmium
D007	T-Chromium	T-Chromium	T-Chromium
D008	T-Lead	T-Lead	T-Lead
D009	T-Mercury	T-Mercury	T-Mercury
D010	T-Selenium	T-Selenium	T-Selenium
D011	T-Silver	T-Silver	T-Silver
		T-Copper	T-Copper
		T-Iron	T-Iron
		T-Manganese	T-Manganese
		T-Zinc	T-Zinc
			T-Aluminum
			T-Beryllium
			T-Cobalt
			T-Molybdenum
			T-Nickel
			T-Vanadium

Instructions for Collection: Slowly fill to top of container.

Required Containers/Volume: **Water** - 4 L amber glass bottle
Soil - 4 oz. amber with Teflon-lined lid glass container

Preservative: Refrigerate or store on ice 4-6°C. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Samples must be TCLP extracted within 7 days after collection and must be analyzed within 180 days, except Mercury which must be analyzed within 28 days after collection.

Method Technology: Method 6010 ICP, Method 6020 ICPMS, and Cold Vapor AA Detections

Preparation Method: Method 1311 Leaching Procedure and Extraction Technique

Back to Analytical Services Table to Contents

Metals

Name: Total Metals & Dissolved Metals (Analytical Groupings)

Test: Total Metals: Type 7, 9, RCRA
Filtered Metals: Type 3, 4, 6010 Metals (Soil)

Note: **To test for dissolved analytes, field filtration must be done at time of sample collection and a filtered-metals bottle used. The constituents of the types are subject to change based upon customer request.**

Type 3
D-Aluminum
D-Arsenic
D-Barium
D-Boron
D-Cadmium
D-Calcium
D-Chromium
D-Copper
D-Iron
D-Lead
D-Magnesium
D-Manganese
D-Mercury
D-Nickel
D-Potassium
D-Selenium
D-Silver
D-Sodium
D-Zinc
Hardness

Type 4
D-Calcium
D-Magnesium
D-Potassium
D-Sodium
Hardness

Type 7
T-Aluminum
T-Arsenic
T-Barium
T-Boron
T-Cadmium
T-Calcium
T-Chromium
T-Copper
T-Iron
T-Lead
T-Magnesium
T-Manganese
T-Mercury
T-Nickel
T-Potassium
T-Selenium
T-Silver
T-Sodium
T-Zinc

Type 9
T-Barium
T-Cadmium
T-Chromium
T-Mercury
T-Selenium

RCRA 8
T-Arsenic
T-Barium
T-Cadmium
T-Chromium
T-Lead
T-Mercury
T-Selenium
T-Silver

RCRA 8+4
T-Arsenic
T-Barium
T-Cadmium
T-Chromium
T-Lead
T-Mercury
T-Selenium
T-Silver
T-Copper
T-Iron
T-Manganese
T-Zinc

RCRA 8+4+6
T-Arsenic
T-Barium
T-Cadmium
T-Chromium
T-Lead
T-Mercury
T-Selenium
T-Silver
T-Copper
T-Iron
T-Manganese
T-Zinc
T-Aluminum
T-Beryllium
T-Cobalt
T-Molybdenum
T-Nickel
T-Vanadium

Instructions for Collection:	Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.
Required Containers/Volume:	250 mL Total Metals – plastic bottle 250 mL Filtered Metals – plastic bottle Soils, solids, sludge– 4 oz. glass container with Teflon-lined lid
Preservative:	Liquids add HNO3 to pH <2. Refrigerate or store on ice. Do not allow to freeze.
Handling:	**Recommend next day receipt at lab. Sample testing must begin within** 180 days after collection, except Mercury which is 28 days (24 hrs for Hg if not preserved).
Method Technology:	ICP (EPA 200.7, 6010), ICPMS (EPA 200.8, 6020), and Cold Vapor AA Detections (EPA 245.1)
Preparation Method:	Digestion Techniques (except for Drinking Water)

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Chlorophyll-A & Pheophytin-A
Test: SM 10200H-CH-A (modified), CHLA_HPLC

Application: Surface Water

Analytes: Chlorophyll-A
Pheophytin-A

Instructions for Collection: Filter up to 1000 mL of water through a glass fiber filter and place filter in an opaque container. **Record the volume of sample filtered on the test request form**.

Required Containers/Volume: Glass fiber filters; Store filter in an opaque container. Use one filter per sample.

Preservative: Freeze sample filter.

Handling: Keep frozen. Protect from light. **Recommend next day receipt at lab**. Must analyze sample within 28 days after collection.

Method Technology: UV-VIS Spectrophotometry or HPLC

Preparation Method: Homogenization; addition of acid for UV-VIS Pheophytin

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Cyanotoxins
Test: ELISA

Microcystins & Cylindrosperm.

Anatoxin-a

Application: Drinking Water, Surface Water

Analytes: Anatoxin-A
Cylindrospermopsin
Total Microcystins & Nodularins

Note: UPHL can also perform ***qPCR*** analysis for total Cyanobacteria present, as well as total Microcystins, Cylindrospermopsin and Saxitoxin.

Instructions for Collection: Carefully fill to shoulder of bottle. Do not immerse or overfill bottle or preservative will be lost.

Required Containers/Volume: 250-mL amber glass bottle. One bottle for Cylidrospermopsin & Microcystins. One bottle for Anatoxin-a.

Preservative: **Surface Water**: Micro/Cylin bottle – no preservative. Anatoxin bottle – 250 mg sodium bisulfate.
Drinking Water: Micro/Cylin bottle – 25 mg ascorbic acid & 25 mg sodium thiosulfate. Anatoxin bottle – 250 mg sodium bisulfate & 25 mg ascorbic acid.

Samples may be stored refrigerated up to 5 days after collection. After 5 days, the samples should be stored frozen.

Handling: Keep samples refrigerated or store on ice**. Recommend same day receipt at lab**. Sample prep and analysis should begin as soon as possible upon receipt.

Method Technology: ELISA

Preparation Method: Freeze/Thaw Cycles

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Haloacetic Acids (HAAs)
Test: SM 6251B

Grouping: Disinfection By-Products
Application: Water systems using chlorine or bromine for disinfection.

Analytes: Dibromoacetic Acid (DBAA)
Dichloroacetic Acid (DCAA)
Monobromoacetic Acid (MBAA)
Monochloroacetic Acid (MCAA)
Trichloroacetic Acid (TCAA)

Instructions for Collection: Allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill vials to top of container, be sure not to over fill to prevent loss of preservative. Check for air bubbles by inverting. Fill the remaining space if bubbles are observed. **There must be no headspace**.

Required Containers/Volume: 3/40 mL vials

Preservative: 65 mg NH_4Cl

Handling: Refrigerate or store on ice. Do not allow sample to freeze. **Recommend next day receipt at lab**. Sample must be extracted within 14 days of sample collection.

Method Technology: Analysis by GC-ECD

Preparation Method: Liquid-liquid Extraction

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Organic Carbon, Total (TOC) & Dissolved (DOC)
Test: SM 5310B-TOC

Grouping: Total Nutrients, Filtered Nutrients

Application: Drinking Water, Surface Water, Groundwater

Analytes: Organic Carbon, Total (TOC)
Organic Carbon, Dissolved (DOC)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to the top of the container. Be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: 200 mL TOC – amber glass bottle

Preservative: H_2SO_4 to pH <2. Refrigerate or store on ice. Do not allow it to freeze.

Handling: **Recommend next day receipt at lab**. Sample must be analyzed within 28 days after collection.

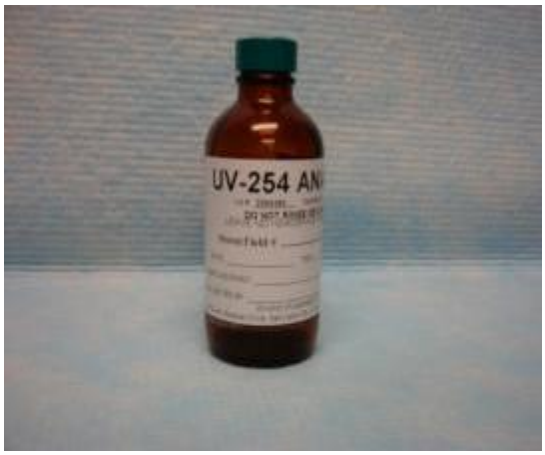
Method Technology: Combustion / Infrared Detection

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Organic Constituents, UV-Absorbing, UV254
Test: SM5910B-UV254

Grouping: Total Nutrients
Water Treatment Technique
Application: Drinking Water, Surface Water, Groundwater



Analytes: UV-Absorbing Organics, UV254

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 200 mL UV254 – amber glass bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample analysis must begin within 48 hours after sample collection.

Method Technology: UV Absorbance

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Periphyton
Test: SM 10300C (modified)

Application: Surface Water

Analytes: Periphyton

Instructions for Collection: Follow sample collector's protocol or SM10200H (modified)

Required Containers/Volume: Glass Fiber filter paper– store in opaque container or follow sample collector's instructions

Preservative: Keep frozen.

Handling: **Recommend next day receipt at lab.** Sample testing must begin as soon as possible after sample collection.

Method Technology: Gravimetry

Preparation Method: Dry-Ashing Technique

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Trihalomethanes (THMs), Max Potential THMs
Test: EPA 524.2-THM

Grouping: Disinfection By-Products

Application: Water systems using chlorine or bromine for disinfection.

Analytes: Bromodichloromethane
Bromoform
Chlorodibromomethane
Chloroform

Maximum Potential THMs, EPA 510.1

Instructions for Collection: Allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill vials to top of container, be sure not to over fill to prevent loss of preservative. Check for air bubbles by inverting. Fill the remaining space if bubbles are observed. **There must be no headspace**.

Required Containers/Volume: 3/40 mL vials

Preservative: 4 mg $Na_2S_2O_3$

Handling: Refrigerate or store on ice. Do not allow sample to freeze. **Recommend next day receipt at lab**. Sample must be analyzed within 14 days of sample collection.

Method Technology: Purge and trap technique; Analysis by GC-MS

Back to Analytical Services Table to Contents

Organic Chemistry

Name: BTEXN

Test: EPA 8260B-BTEXN

Pass-Through Organic Test

Application: Wastewater, Soil

Analytes:
Benzene
Toluene
Ethylbenzene
Xylenes
Naphthalene

Note: **If using Encore sampler, please bring to lab as soon as possible (within 48 hours).**

Instructions for Collection: If applicable, allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill vials to top of container. Check for air bubbles by inverting, and fill the remaining portion if bubbles found. There must be no headspace.

Required Containers/Volume: Water – 3/40 mL vials
Soil – 4 oz. glass container with Teflon-lined lid

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 14 days after sample collection.

Method Technology: Purge and trap technique followed by GCMS detection

Preparation Method: Water-EPA 5030; Soil-EPA 3585

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Carbamates (Insecticides & Alicarbs)
Test: EPA 531.1

Pass-Through Organic Test

Application: Drinking Water

Analytes:
3-Hydroxycarbofuran
Aldicarb (Temik)
Aldicarb Sulfone
Aldicarb Sulfoxide
Carbaryl (Sevin)
Carbofuran (Furadan)
Methomyl
Oxamyl (Vydate)

Instructions for Collection: Allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill vial to top of container, be sure not to over fill to prevent loss of preservative. Check for air bubbles by inverting, and fill the remaining portion if bubbles found. There must be no headspace.

Required Containers/Volume: 40 mL amber glass vial

Preservative: 1.2 mL Monochloroacetic acid. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after sample collection.

Method Technology: Aqueous Injection HPLC with Post-column Derivation and Fluorescence Detection

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Geosmin & MIB (Odor)

Test: EPA 525.2-ODOR

Pass-Through Organic Test

Application: Drinking Water

Analytes: Geosmin
2-Methylisoborneol (MIB)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L Method EPA 525.2 Odor – amber glass bottle

Handling: **Same day receipt at lab.** No holding time

Method Technology: GCMS Detection

Preparation Method: Liquid-solid extraction

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Herbicides (Chlorinated Organic Acids)
Test: EPA 515.1-HERB, EPA 8151-HERB

Pass-Through Organic Test

Application: Drinking Water, Surface Water, Wastewater, Groundwater, Soil

Analytes:
2,4-D
2,4,5-TP (Silvex)
Dalapon
Dicamba
Dinoseb
Pentachlorophenol
Picloram

Instructions for Collection: If applicable, allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill bottles to top of container, be sure not to over fill to prevent loss of preservative. Collect per project sampling plan.

Required Containers/Volume: **Water** – 2/1L amber glass bottles
Soils, Solids, and Sludge– 4 oz. amber glass container with Teflon-lined lid

Preservative: 30 mg $Na_2S_2O_3$ if chlorinated. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab. Sample extraction must begin within** 14 days after collection. Analysis must begin within 28 days after extraction.

Method Technology: GC-ECD Detection

Preparation Method: EPA 515.1 and 8151 (Water)- Liquid-liquid extraction; EPA 8151-(Soils) Solid-liquid extraction, then liquid-liquid extraction.

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Oil and Grease
Test: EPA 1664-O/G

Pass-Through Organic Test

Analytes: Total O/G (Oil and Grease)

Instructions for Collection: If applicable, allow source to flow for a few minutes until water temperature stabilizes. Slowly fill containers to top, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: Water – 1 L glass container with Teflon-lined lid
Soil – 4 oz. glass container with Teflon-lined lid

Preservative: H_2SO_4 to pH <2. Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample testing must begin within 28 days after collection.

Method Technology: Gravimetric Detection

Preparation Method: Liquid-solid Extraction

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Pesticides & Semi-Volatile Organic Compounds (SVOCs)
Test: EPA 525.2-SVOC, EPA 625-SVOC, EPA 8270-SVOC

Pass-Through Organic Test

Application: Drinking Water, Surface Water, Wastewater, Groundwater, Solids

Analytes: Refer to Program Specific Indexes

CWA ..... Page 75
RCRA ..... Page 82
SDWA ..... Page 91

Instructions for Collection: For drinking water samples, pour the small vial of acid into each sample bottle. Allow source to flow for a few minutes until water temperature stabilizes, **do not use Tygon tubing**. Slowly fill bottles to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume:
Drinking Water – 2/1L amber glass bottles + acid vials
Surface Water – 2/1L amber glass bottles
Groundwater – 2/1L amber glass bottles
Soil, solids, sludges – 4 oz. amber glass container with Teflon-lined lid

Preservative:
Drinking Water – HCl to pH <2, 50 mg sodium sulfite
Surface Water – No preservative
Groundwater and Solids – No preservative
All sample types, refrigerate or store on ice 4-6°C. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample extraction/analysis times: EPA 525.2 – 14 days to extract, then 30 days to analyze. EPA 625 and EPA 8270 – 7 days to extract, then 40 days to analyze. Solids – 14 days to extract, then 40 days to analyze.

Method Technology: GCMS Detection

Preparation Method: Liquid-solid Extraction; Groundwater (EPA 8270)-EPA 3510; Soil (EPA 8270)-EPA 3550 or EPA 3545A

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Polychlorinated Biphenyls (PCBs) & Organochlorine Pesticides (OcPest)
Test: EPA 608-PCB/OcPEST, EPA 8081-OcPEST, EPA 8082-PCB

Pass-Through Organic Test

Applicaton: Surface Water, Groundwater, Wastewater, Solids

Analytes: Refer to Program Specific Indexes

CWA ..... Page 71
RCRA ..... Page 78

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: **Surface Water** – 1 L amber glass bottle
Groundwater – 1 L amber glass bottle
Soils, solids, sludge – 4 oz. amber glass container with Teflon-lined lid
Oil – 4 oz. amber glass container with Teflon-lined lid

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample extraction must begin within 7 days of collection (except Soil – 14 days). Analysis must begin within 40 day of extraction.

Method Technology: GCMS detection

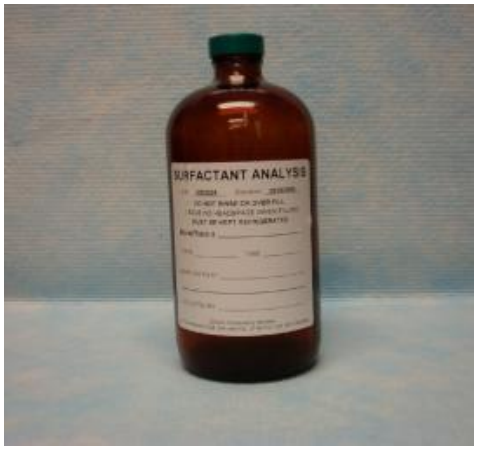
Preparation Method: Extraction technique (Liquid-liquid, sonication, waste dilution); Water- EPA 3510; Oils-EPA 3580; Soil-EPA 3550.

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Surfactants

Test: SM 5540C-SURF



Pass-Through Organic Test

Grouping: New Drinking Water Source
Application: Drinking Water, Surface Water
Analytes: Total Surfactants

Instructions for Collection: Allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: 1 L amber glass bottle

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend same day receipt at lab.** Sample testing must begin within 48 hours after sample collection.

Method Technology: MBAS Detection

Preparation Method: Extraction Technique

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Total Petroleum Hydrocarbons (TPH)
Test: EPA 8015B-TPH

Pass-Through Organic Test

Application: Surface Water. Wastewater, Groundwater, Soil

Analytes: GRO-Gasoline Range Organics (C6-C10)
DRO-Diesel Range Organics (C10-C28)
ORO-Oil Range Organics (C28-C35)

Total TPH = GRO+DRO+ORO

Instructions for Collection: If applicable, allow sample tap to run for a few minutes until water temperature stabilizes. Slowly fill vials to top of container. Check for air bubbles by inverting, and fill the remaining portion if bubbles found. There must be no headspace.

Required Containers/Volume: **Water** – 3/40 mL vials
Soil – 4 oz. glass container with Teflon-lined lid

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Sample extraction must begin within 14 days of collection, then sample analysis within 40 days after extraction.

Method Technology: GCFID Detection

Preparation Method: Extraction technique (liquid-liquid, waste dilution); Water-EPA 3510; Soil- EPA 3580

Back to Analytical Services Table to Contents

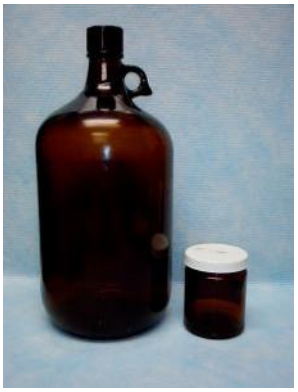
Organic Chemistry

Name: RCRA Toxic Characteristic Leaching Procedure (TCLP)
Test: TCLP-Organics (VOCs, SVOCs, Pesticides, Herbicides)

Pass-Through Organic Test

Groupings: RCRA Organic Testing

Application: Wastewater, Soil, Oil



Herbicides
2,4-D
2,4,5-TP (Silvex)

Pesticides
Chlordane
Endrin
Heptachlor
Heptachlor Epoxide
Lindane
Methoxychlor
Toxaphene

VOCs		SVOCs	
D029	1,1-Dichloroethene	D030	2.4-Dinitrotoluene
D028	1,2-Dichloroethane	D041	2,4,5-Trichlorophenol
D027	1,4-Dichlorobenzene	D042	2,4,6-Trichlorophenol
D018	Benzene	D032	Hexachlorobenzene
D019	Carbon Tetrachloride	D033	Hexachlorobutadiene
D021	Chlorobenzene	D034	Hexachloroethane
D022	Chloroform	D024	m-Cresol
D035	Methyl Ethyl Ketone	D036	Nitrobenzene
D039	Tetrachloroethene	D023	o-Cresol
D040	Trichloroethene	D025	p-Cresol
D043	Vinyl Chloride	D037	Pentachlorophenol
		D038	Pyridine

Instructions for Collection: Slowly fill to top of container.

Required Containers/Volume: **Liquids** – 4 L amber glass bottle
Soil & Oil – 4 oz. amber glass container with Teflon-lined lid

Preservative: Refrigerate or store on ice. Do not allow to freeze.

Handling: **Recommend next day receipt at lab.** Prep and analysis times:
SVOCs: 7 days to TCLP/40 days to analyze.
VOCs: 14 days to TCLP/40 days to analyze.
Pesticides: 7 days to extract/40 days to analyze.
Solids: 14 days to extract/ 40 days to analyze.
Herbicides: 14 days to extract/28 days to analyze.

Method Technology: GCMS Detection

Preparation Method: Leaching Procedure & Extraction Technique

Back to Analytical Services Table to Contents

Organic Chemistry

Name: Volatile Organic Compounds (VOCs)
Test: EPA 524.2-VOC, EPA 624-VOC, EPA 8260-VOC

Pass-Through Organic Test

Application: Drinking Water, Surface Water, Wastewater, Groundwater, Solids

Analytes: Refer to Program Specific Indexes

CWA ..... Page 73
RCRA ..... Page 80
SDWA ..... Page 88

Note: **If using Encore sampler, please bring to lab as soon as possible (within 48 hours).**

Instructions for Collection: **Caution: For surface waters and groundwater samples, check to see if HCl preservative reacts with source water (foams, effervesces, etc.). If a reaction occurs, do not add HCl.** For aqueous samples, fill vials with sample source to top of container. Add 2 drops HCl acid to each vial, more drops needed if highly buffered source. Be sure not to over fill to prevent loss of preservative. Check for air bubbles by inverting, and fill the remaining portion if bubbles are found. **There must be no headspace**.

Required Containers/Volume: **Drinking Water** – 3/40mL vials, plus 1 trip blank
Surface Water – 4/40 mL, plus 1 trip blank
Groundwater – 4/40 mL vials, plus 1 trip blank, prepared and delivered with sample bottles.
Note: For chlorinated sites, use specially prepared 4/40 mL vials.
Soil, solids, sludge – 4 oz. glass container with Teflon-lined lid

Preservative: **Drinking Water** – 25 mg ascorbic acid, HCl to pH <2.
Surface Water – 10 mg $Na_2S_2O_3$ for chlorinated sites and HCl if needed.
Groundwater – 10 mg $Na_2S_2O_3$ for chlorinated sites and HCl if needed.
All sample types, refrigerate or store on ice. Do not allow to freeze, 4-6°C.

Handling: **Recommend next day receipt at lab. For water, sample analysis must begin within** 14 days after collection. For Soil, extraction must occur within 14 days after collection and then 14 days for analysis after extraction.

Method Technology: Purge and trap technique followed by GCMS detection

Preparation Method: Water (EPA 624 and EPA 8260): EPA 3050. Soil (EPA 8260): EPA 3585

Back to Analytical Services Table to Contents

Environmental Water Microbiology

Name: Heterotrophic Plate Count (HPC)
Test: SM 9215B

Application: Drinking Water, Pool/Spa Water, Reagent Water (deionized, distilled, etc.), Surface Water

Analytes: Heterotrophic Plate Count (total bacteria count)

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container, be sure not to over fill to prevent loss of preservative.

Required Containers/Volume: Sterile plastic bottle; 120 mL Water Bacteriology

Preservative: 10 mg $Na_2S_2O_3$

Handling: Refrigerate or store on ice. Do not allow sample to freeze. **Recommend same day receipt at lab**. Sample analysis must begin within 30 hours after collection, except for Surface Water which must begin within 8 hours.

Method Technology: Pour Plate Agar

Back to Analytical Services Table to Contents

Environmental Water Microbiology

Name: Legionella
Test: SM 9260J

Application: Drinking Water (hot water tanks), Air Handling (swamp coolers, evaporators, etc.)

Analytes: Legionella

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.

Required Containers/Volume: Unpreserved plastic bottle; 500 mL – 2 L.

Preservative: None

Handling: **Recommend same day or next day receipt at lab**. Testing must begin within 48 hours of receiving sample.

Method Technology: Filtration, Elution, MWY Agar, BCYE Agar, Latex-Agglutination.

****The Utah Public Health Laboratory is a member of the CDC's ELITE program for Legionella testing.****

Back to Analytical Services Table to Contents

Environmental Water Microbiology

Name: Total Coliforms/E.*coli*.
Test: SM 9223B-Colilert

Application: Drinking Water, Surface Water

Analytes: Total Coliforms
E.*coli*.

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to above the 100 mL line but below the 120 mL line. Do not over fill to prevent loss of preservative.

Required Containers/Volume: Sterile Plastic Bottle; 120 mL Water Bacteriology

Preservative: 10 mg $Na_2S_2O_3$

Handling: Refrigerate or store on ice. Do not allow sample to freeze. **Recommend same day receipt at lab**. Sample analysis must begin within 30 hours after collection, except for Surface Water which must begin within 8 hours.

Method Technology: Chromofluorgenic

Back to Analytical Services Table to Contents

Program Specific Indexes

Clean Water Act (CWA)

Analyte	Test Code	UPHL Unit	Page Number
Alkalinity	**SM 2320B-ALK**	Inorganic Chemistry	**13**
Aluminum	**EPA 200.8-AL**	Metals	47
Ammonia	**EPA 350.1-NH3**	Inorganic Chemistry-Nutrients	14
Antimony	**EPA 200.8-SB**	Metals	47
Arsenic	**EPA 200.8-AS**	Metals	39
Barium	**EPA 200.8-BA**	Metals	47
Beryllium	**EPA 200.8-BE**	Metals	47
BOD	**EPA 405.1-BOD**	Inorganic Chemistry	15
Boron	**EPA 200.7-B**	Metals	47
Cadmium	**EPA 200.8-CD**	Metals	47
Calcium	**EPA 200.7-CA**	Metals	47
CBOD	**CBOD**	Inorganic Chemistry	15
Chloride	**EPA 325.2-CL**	Inorganic Chemistry	17
Chlorophyll-A	**SM 10200H-CH-A**	Inorganic Chemistry	48
Chromium	**EPA 200.8-CR**	Metals	47
Chromium-IV	**EPA 218.7**	Inorganic Chemistry	41
Cobalt	**EPA 200.8-CO**	Metals	47
Conductivity	**EPA 120.1-COND**	Inorganic Chemistry	19
Copper	**EPA 200.8-CU**	Metals	47
Cyanide	**EPA-CNCL**	Inorganic Chemistry	21
E. coli	**SM 9223B-Colilert**	Environmental Microbiology	68
Fluoride	**EPA 300.0-FLIC**	Inorganic Chemistry	22

Program Specific Indexes

Clean Water Act (CWA)

Analyte	Test Code	UPHL Unit	Page Number
Hardness	**HARD**	Inorganic Chemistry	44
Heterotrophic Plate Count	**SM 9215B-HPC**	Environmental Microbiology	66
Iron	**EPA 200.7-FE**	Metals	47
Lead	**EPA 200.8-PB**	Metals	47
Magnesium	**EPA 200.7-MG**	Metals	47
Manganese	**EPA 200.8-MN**	Metals	47
Mercury	**EPA 245.1-HG**	Metals	40
Mercury	**EPA 200.8-HG**	Metals	47
Molybdenum	**EPA 200.8-MO**	Metals	47
Nickel	**EPA 200.8-NI**	Metals	47
Nitrate+Nitrite	**EPA 353.2-NO2+NO3**	Inorganic Chemistry-Nutrients	23
Nitrite (only)	**EPA 353.2-NO2**	Inorganic Chemistry-Nutrients	23
Oil and Grease	**EPA 1664-O/G**	Organic Chemistry	59
Phosphate	**EPA 365.1-TPO4**	Inorganic Chemistry-Nutrients	28
pH	**EPA 150.1-PH**	Inorganic Chemistry	27
Potassium	**EPA 200.7-K**	Metals	47
Selenium	**EPA 200.8-SE**	Metals	47
Silica	**EPA 370.1-SIO2**	Inorganic Chemistry	29
Silver	**EPA 200.8-AG**	Metals	47

Program Specific Indexes

Clean Water Act (CWA)
Clean Water Act (CWA) – EPA608-PCB/OcPest

Analyte	Test Code	UPHL Unit	Page Number
Sodium	**EPA 200.7-NA**	Metals	47
Sulfate	**EPA 375.2-SO4**	Inorganic Chemistry	30
Sulfide	**EPA 376.2-SULI**	Inorganic Chemistry	31
Thallium	**EPA 200.8-TL**	Metals	47
TOC	**SM 5310B-TOC**	Inorganic Chemistry	51
Total Coliform	**SM 9223B-Colilert**	Environmental Microbiology	68
Total Dissolved Solids	**EPA 160.1-TDS**	Inorganic Chemistry	32
Total Suspended Solids	**EPA 160.2-TSS**	Inorganic Chemistry	32
Turbidity	**EPA EPA 180.1-TURB**	Inorganic Chemistry	33
UV254	**SM 5910B-UV254**	Inorganic Chemistry	52
Vanadium	**EPA 200.8-V**	Metals	47
Zinc	**EPA 200.8-ZN**	Metals	47
4,4'-DDD	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
4,4'-DDE	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
4,4'-DDT	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Aldrin	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
alpha-BHC	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
beta-BHC	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Chlordane	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
delta-BHC	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Dieldrin	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Endosulfan I	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61

Program Specific Indexes

Clean Water Act (CWA) – EPA 608-PCB/OcPest
Clean Water Act (CWA) – EPA 624-VOC

Analyte	Test Code	UPHL Unit	Page Number
Endosulfan II	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Endosulfan sulfate	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Endrin	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Endrin aldehyde	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
gamma-BHC	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Heptachlor	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Heptachlor epoxide	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Methoxychlor	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1016	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1221	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1232	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1242	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1248	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1254	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
PCB-1260	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
Toxaphene	**EPA 608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	61
1,1-Dichloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1-Dichloroethene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1-Dichloropropene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1,1-Trichloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1,1,2- Tetrachloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1,2-Trichloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,1,2,2-Tetrachloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65

Program Specific Indexes

Clean Water Act (CWA) – EPA 624-VOC

Analyte	Test Code	UPHL Unit	Page Number
1,2-Dibromo-3-chloropropane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2-Dichlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2-Dichloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2-Dichloropropane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2-Dichlorotoluene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2,3-Trichlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2,3-Trichloropropane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2,4-Trichlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2,4-Trimethylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,3-Dichlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,3-Dichloropropane	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,3,5-Trimethylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,4-Dichlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,4-Dichlorotoluene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,4-Isopropyltoluene	**EPA 624-VOC**	Organic Chemistry-VOC	65
2,2-Dichloropropane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Benzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Bromobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Bromochloromethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Bromodichloromethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Bromoform	**EPA 624-VOC**	Organic Chemistry-VOC	65
Bromomethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Carbon tetrachloride	**EPA 624-VOC**	Organic Chemistry-VOC	65
Chlorobenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Chlorodibromomethane	**EPA 624-VOC**	Organic Chemistry-VOC	65

Program Specific Indexes

Clean Water Act (CWA) – EPA 624-VOC

Analyte	Test Code	UPHL Unit	Page Number
Chloroethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Chloroform	**EPA 624-VOC**	Organic Chemistry-VOC	65
Chloromethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
cis-1,2-Dichloroethene	**EPA 624-VOC**	Organic Chemistry-VOC	65
cis-1,3-Dichloropropene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Dibromomethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Dichlorodifluoromethane	**EPA 624-VOC**	Organic Chemistry-VOC	65
Ethylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Ethylene dibromide	**EPA 624-VOC**	Organic Chemistry-VOC	65
Hexachlorobutadiene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Isopropylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Methylene chloride	**EPA 624-VOC**	Organic Chemistry-VOC	65
MTBE	**EPA 624-VOC**	Organic Chemistry-VOC	65
Napthalene	**EPA 624-VOC**	Organic Chemistry-VOC	65
n-Butylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
n-Propylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
sec-Butylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Styrene	**EPA 624-VOC**	Organic Chemistry-VOC	65
tert-Butylbenzene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Tetrachloroethene (PCE)	**EPA 624-VOC**	Organic Chemistry-VOC	65
Toluene	**EPA 624-VOC**	Organic Chemistry-VOC	65
trans-1,2-Dichloroethene	**EPA 624-VOC**	Organic Chemistry-VOC	65
trans-1,3-Dichloropropene	**EPA 624-VOC**	Organic Chemistry-VOC	65
Trichloroethene (TCE)	**EPA 624-VOC**	Organic Chemistry-VOC	65
Trichlorofluoromethane	**EPA 624-VOC**	Organic Chemistry-VOC	65

Program Specific Indexes

Clean Water Act (CWA) – EPA 624-VOC
Clean Water Act (CWA) – EPA 625-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Vinyl chloride	**EPA 624-VOC**	Organic Chemistry-VOC	65
Xylene	**EPA 624-VOC**	Organic Chemistry-VOC	65
1,2-Dichlorobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
1,2,4-Trichlorobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
1,3-Dichlorobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
1,4-Dichlorobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Chloronaphthalene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Chlorophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Methyl naphthalene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Methyl phenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Methyl-4,6-dinitrophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Nitroaniline	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2-Nitrophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,4-Dichlorophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,4-Dimethylphenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,4-Dinitrophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,4-Dinitrotoluene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,4,6-Trichlorophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
2,6-Dinitrotoluene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
3-Methyl phenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
3-Nitroaniline	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
3,3'-Dichlorobenzidine	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Bromophenyl phenyl ether	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Chloroaniline	**EPA 625-SVOC**	Organic Chemistry-SVOC	60

Program Specific Indexes

Clean Water Act (CWA) – EPA 625-SVOC

Analyte	Test Code	UPHL Unit	Page Number
4-Chlorophenyl phenyl ether	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Chloro-3-methyl phenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Methyl phenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Nitroaniline	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
4-Nitrophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Acenaphthene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Acenaphthylene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Aniline	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Anthracene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzidine	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzo (a) anthracene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzo (a) pyrene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzo (b) fluoranthene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzo (g,h,i) perylene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzo (k) fluoranthene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzylbutylphthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzyl alcohol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Benzoic acid	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
bis (2-chloroethyl) ether	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
bis (2-chloroethoxy) methane	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
bis (2-chloroisopropyl) ether	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
bis (2-ethylhexyl) phthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Chrysene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Dibenzo (a,h) anthracene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Dibenzofuran	**EPA 625-SVOC**	Organic Chemistry-SVOC	60

Program Specific Indexes

Clean Water Act (CWA) – EPA 625-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Diethyl phthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Dimethyl phthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Di-n-butyl phthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Di-n-octyl phthalate	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Fluoranthene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Fluorene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Hexachlorobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Hexachlorobutadiene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Hexachlorocyclopentadiene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Hexachloroethane	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Indeno (1,2,3-cd) pyrene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Isophorone	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
n-Nitrosodimethylamine	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
n-Nitrosodiphenylamine	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
n-Nitrosodipropylamine	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Naphthalene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Nitrobenzene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Pentachlorophenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Phenanthrene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Phenol	**EPA 625-SVOC**	Organic Chemistry-SVOC	60
Pyrene	**EPA 625-SVOC**	Organic Chemistry-SVOC	60

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8081-PCB/OcPest

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
4,4'-DDD	**EPA 8081-OcPest**	U060	Organic Chemistry-PCB/OcPest	61
4,4'-DDE	**EPA 8081-OcPest**		Organic Chemistry-PCB/OcPest	61
4,4'-DDT	**EPA 8081-OcPest**	U061	Organic Chemistry-PCB/OcPest	61
Aldrin	**EPA 8081-OcPest**	P005	Organic Chemistry-PCB/OcPest	61
alpha-BHC	**EPA 8081-OcPest**	U129	Organic Chemistry-PCB/OcPest	61
beta-BHC	**EPA 8081-OcPest**		Organic Chemistry-PCB/OcPest	61
Chlordane	**EPA 8081-OcPest**	D020	Organic Chemistry-PCB/OcPest	61
delta-BHC	**EPA 8081-OcPest**		Organic Chemistry-PCB/OcPest	61
Dieldrin	**EPA 8081-OcPest**	P037	Organic Chemistry-PCB/OcPest	61
Endosulfan I	**EPA 8081-OcPest**	P050	Organic Chemistry-PCB/OcPest	61
Endosulfan II	**EPA 8081-OcPest**	P050	Organic Chemistry-PCB/OcPest	61
Endosulfan sulfate	**EPA 8081-OcPest**	P050	Organic Chemistry-PCB/OcPest	61
Endrin	**EPA 8081-OcPest**	D012	Organic Chemistry-PCB/OcPest	61
Endrin aldehyde	**EPA 8081-OcPest**	D012	Organic Chemistry-PCB/OcPest	61
gamma-BHC (Lindane)	**EPA 8081-OcPest**	D013	Organic Chemistry-PCB/OcPest	61
Heptachlor	**EPA 8081-OcPest**	D031	Organic Chemistry-PCB/OcPest	61
Heptachlor epoxide	**EPA 8081-OcPest**	D031	Organic Chemistry-PCB/OcPest	61
Methoxychlor	**EPA 8081-OcPest**	D014	Organic Chemistry-PCB/OcPest	61
PCB-1016	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1221	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1232	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1242	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1248	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1254	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61
PCB-1260	**EPA 8082-PCB**		Organic Chemistry-PCB/OcPest	61

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8081-PCB/OcPest
Resource Conservation & Recovery Act (RCRA) – EPA 8151-Herbicides

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
Toxaphene	**EPA 8081-OcPest**	D015	Organic Chemistry-PCB/OcPest	61
*Add-ons	**EPA 8081-OcPest**		Organic Chemistry-PCB/OcPest	61
2,4-D	**EPA 8151-Herbicides**	D016	Organic Chemistry-Herbicides	58
2,4,5-TP (Silvex)	**EPA 8151-Herbicides**	D017	Organic Chemistry-Herbicides	58
Dalapon	**EPA 8151-Herbicides**		Organic Chemistry-Herbicides	58
Dinoseb	**EPA 8151-Herbicides**	P020	Organic Chemistry-Herbicides	58
Pentachlorophenol	**EPA 8151-Herbicides**	D037	Organic Chemistry-Herbicides	58
Picloram	**EPA 8151-Herbicides**		Organic Chemistry-Herbicides	58
*Add-ons	**EPA 8151-Herbicides**		Organic Chemistry-Herbicides	58
1,1-Dichloroethane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,1-Dichloroethene	**EPA 8260-VOC**	D029	Organic Chemistry-VOC	65
1,1-Dichloropropene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,1,1-Trichloroethane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,1,1,2-Tetrachloroethane	**EPA 8260-VOC**	U208	Organic Chemistry-VOC	65
1,1,2-Trichloroethane	**EPA 8260-VOC**	U227	Organic Chemistry-VOC	65
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,1,2,2-Tetrachloroethane	**EPA 8260-VOC**	U209	Organic Chemistry-VOC	65
1,2-Dibromo-3-chloropropane	**EPA 8260-VOC**	U066	Organic Chemistry-VOC	65
1,2-Dichlorobenzene	**EPA 8260-VOC**	U070	Organic Chemistry-VOC	65
1,2-Dichloroethane	**EPA 8260-VOC**	D028	Organic Chemistry-VOC	65
1,2-Dichloropropane	**EPA 8260-VOC**	U083	Organic Chemistry-VOC	65
1,2-Dichlorotoluene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,2,3-Trichlorobenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65

*Tentative analysis by special request, record specific analyte on test request form and schedule at 801-965-2400

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8260-VOC

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
1,2,3-Trichloropropane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,2,4-Trichlorobenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,2,4-Trimethylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,3-Dichlorobenzene	**EPA 8260-VOC**	U071	Organic Chemistry-VOC	65
1,3-Dichloropropane	**EPA 8260-VOC**	U084	Organic Chemistry-VOC	65
1,3,5-Trimethylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
1,4-Dichlorobenzene	**EPA 8260-VOC**	D027	Organic Chemistry-VOC	65
1,4-Dichlorotoluene	**EPA 8260-VOC**	U072	Organic Chemistry-VOC	65
1,4-Isopropyltoluene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
2,2-Dichloropropane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Benzene	**EPA 8260-VOC**	D018	Organic Chemistry-VOC	65
Bromobenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Bromochloromethane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Bromodichloromethane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Bromoform	**EPA 8260-VOC**	U225	Organic Chemistry-VOC	65
Bromomethane	**EPA 8260-VOC**	U029	Organic Chemistry-VOC	65
Carbon tetrachloride	**EPA 8260-VOC**	D019	Organic Chemistry-VOC	65
Chlorobenzene	**EPA 8260-VOC**	D021	Organic Chemistry-VOC	65
Chlorodibromomethane	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Chloroethane	**EPA 8260-VOC**	U045	Organic Chemistry-VOC	65
Chloroform	**EPA 8260-VOC**	D022	Organic Chemistry-VOC	65
Chloromethane	**EPA 8260-VOC**	U045	Organic Chemistry-VOC	65
cis-1,2-Dichloroethene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
cis-1,3-Dichloropropene	**EPA 8260-VOC**		Organic Chemistry-VOC	65

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8260-VOC

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
Dibromomethane	**EPA 8260-VOC**	U068	Organic Chemistry-VOC	65
Dichlorodifluoromethane	**EPA 8260-VOC**	U075	Organic Chemistry-VOC	65
Ethylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Ethylene dibromide	**EPA 8260-VOC**	U067	Organic Chemistry-VOC	65
Hexachlorobutadiene	**EPA 8260-VOC**	D033	Organic Chemistry-VOC	65
Isopropylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Methyl ethyl ketone*	**EPA 8260-VOC**	D035	Organic Chemistry-VOC	65
Methylene chloride	**EPA 8260-VOC**	U080	Organic Chemistry-VOC	65
MTBE	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Napthalene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
n-Butylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
n-Propylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
sec-Butylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Styrene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
tert-Butylbenzene	**EPA 8260-VOC**		Organic Chemistry-VOC	65
Tetrachloroethene (PCE)	**EPA 8260-VOC**	D039	Organic Chemistry-VOC	65
Toluene	**EPA 8260-VOC**	U220	Organic Chemistry-VOC	65
trans-1,2-Dichloroethene	**EPA 8260-VOC**	U079	Organic Chemistry-VOC	65
trans-1,3-Dichloropropene	**EPA 8260-VOC**	U084	Organic Chemistry-VOC	65
Trichloroethene (TCE)	**EPA 8260-VOC**	D040	Organic Chemistry-VOC	65
Trichlorofluoromethane	**EPA 8260-VOC**	U121	Organic Chemistry-VOC	65
Vinyl chloride	**EPA 8260-VOC**	D043	Organic Chemistry-VOC	65
Xylene	**EPA 8260-VOC**	U239	Organic Chemistry-VOC	65
*Add-ons	**EPA 8260-VOC**		Organic Chemistry-VOC	65

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Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8270-SVOC

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
1,2-Dichlorobenzene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
1,2,4-Trichlorobenzene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
1,3-Dichlorobenzene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
1,4-Dichlorobenzene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
2-Chloronaphthalene	**EPA 8270-SVOC**	U047	Organic Chemistry-SVOC	60
2-Chlorophenol	**EPA 8270-SVOC**	U048	Organic Chemistry-SVOC	60
2-Methyl naphthalene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
2-Methyl phenol (o-Cresol)	**EPA 8270-SVOC**	D023	Organic Chemistry-SVOC	60
2-Methyl-4,6-dinitrophenol	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
2-Nitroaniline	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
2-Nitrophenol	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
2,4-Dichlorophenol	**EPA 8270-SVOC**	U081	Organic Chemistry-SVOC	60
2,4-Dimethylphenol	**EPA 8270-SVOC**	U101	Organic Chemistry-SVOC	60
2,4-Dinitrophenol	**EPA 8270-SVOC**	P048	Organic Chemistry-SVOC	60
2,4-Dinitrotoluene	**EPA 8270-SVOC**	D030	Organic Chemistry-SVOC	60
2,4,5-Trichlorophenol	**EPA 8270-SVOC**	D041	Organic Chemistry-SVOC	60
2,4,6-Trichlorophenol	**EPA 8270-SVOC**	D042	Organic Chemistry-SVOC	60
2,6-Dinitrotoluene	**EPA 8270-SVOC**	U106	Organic Chemistry-SVOC	60
3-Methyl phenol (m-Cresol)	**EPA 8270-SVOC**	D024	Organic Chemistry-SVOC	60
3-Nitroaniline	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
3,3'-Dichlorobenzidine	**EPA 8270-SVOC**	U073	Organic Chemistry-SVOC	60
4-Bromophenyl phenyl ether	**EPA 8270-SVOC**	U030	Organic Chemistry-SVOC	60
4-Chloroaniline	**EPA 8270-SVOC**	P024	Organic Chemistry-SVOC	60
4-Chlorophenyl phenyl ether	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
4-Chloro-3-methyl phenol	**EPA 8270-SVOC**	U039	Organic Chemistry-SVOC	60

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8270-SVOC

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
4-Methyl phenol (p-Cresol)	**EPA 8270-SVOC**	D025	Organic Chemistry-SVOC	60
4-Nitroaniline	**EPA 8270-SVOC**	P077	Organic Chemistry-SVOC	60
4-Nitrophenol	**EPA 8270-SVOC**	U170	Organic Chemistry-SVOC	60
Acenaphthene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Acenaphthylene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Aniline	**EPA 8270-SVOC**	U012	Organic Chemistry-SVOC	60
Anthracene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzidine	**EPA 8270-SVOC**	U021	Organic Chemistry-SVOC	60
Benzo (a) anthracene	**EPA 8270-SVOC**	U018	Organic Chemistry-SVOC	60
Benzo (a) pyrene	**EPA 8270-SVOC**	U022	Organic Chemistry-SVOC	60
Benzo (b) fluoranthene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzo (g,h,i) perylene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzo (k) fluoranthene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzylbutylphthalate	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzyl alcohol	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Benzoic acid	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
bis (2-chloroethyl) ether	**EPA 8270-SVOC**	U025	Organic Chemistry-SVOC	60
bis (2-chloroethoxy) methane	**EPA 8270-SVOC**	U046	Organic Chemistry-SVOC	60
bis (2-chloroisopropyl) ether	**EPA 8270-SVOC**	U027	Organic Chemistry-SVOC	60
bis (2-ethylhexyl) phthalate	**EPA 8270-SVOC**	U028	Organic Chemistry-SVOC	60
Chrysene	**EPA 8270-SVOC**	U050	Organic Chemistry-SVOC	60
Dibenzo (a,h) anthracene	**EPA 8270-SVOC**	U063	Organic Chemistry-SVOC	60
Dibenzofuran	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Diethyl phthalate	**EPA 8270-SVOC**	U088	Organic Chemistry-SVOC	60
Dimethyl phthalate	**EPA 8270-SVOC**	U102	Organic Chemistry-SVOC	60

Program Specific Indexes

Resource Conservation & Recovery Act (RCRA) – EPA 8270-SVOC

Analyte	Test Code	EPA HW#	UPHL Unit	Page#
Di-n-butyl phthalate	**EPA 8270-SVOC**	U069	Organic Chemistry-SVOC	60
Di-n-octyl phthalate	**EPA 8270-SVOC**	U107	Organic Chemistry-SVOC	60
Fluoranthene	**EPA 8270-SVOC**	U120	Organic Chemistry-SVOC	60
Fluorene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Hexachlorobenzene	**EPA 8270-SVOC**	D032	Organic Chemistry-SVOC	60
Hexachlorobutadiene	**EPA 8270-SVOC**	D033	Organic Chemistry-SVOC	60
Hexachlorocyclopentadiene	**EPA 8270-SVOC**	U130	Organic Chemistry-SVOC	60
Hexachloroethane	**EPA 8270-SVOC**	D034	Organic Chemistry-SVOC	60
Ideno (1,2,3-cd) pyrene	**EPA 8270-SVOC**	U137	Organic Chemistry-SVOC	60
Isophorone	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
n-Nitrosodimethylamine	**EPA 8270-SVOC**	P082	Organic Chemistry-SVOC	60
n-Nitrosodiphenylamine	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
n-Nitrosodipropylamine	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Naphthalene	**EPA 8270-SVOC**	U165	Organic Chemistry-SVOC	60
Nitrobenzene	**EPA 8270-SVOC**	D036	Organic Chemistry-SVOC	60
Pentachlorophenol	**EPA 8270-SVOC**	D037	Organic Chemistry-SVOC	60
Phenanthrene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
Phenol	**EPA 8270-SVOC**	U188	Organic Chemistry-SVOC	60
Pyrene	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60
*Pyridine	**EPA 8270-SVOC**	D038	Organic Chemistry-SVOC	60
*Add-ons	**EPA 8270-SVOC**		Organic Chemistry-SVOC	60

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Program Specific Indexes

Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
2,4-D	**EPA 515.1**	Organic Chemistry-Herbicides	58
2,4,5-TP (Silvex)	**EPA 515.1**	Organic Chemistry-Herbicides	58
3-Hyrdroxycarbofuran	**EPA 531.1**	Organic Chemistry-Carbamates	56
Aldicarb (Temik)	**EPA 531.1**	Organic Chemistry-Carbamates	56
Aldicarb sulfone	**EPA 531.1**	Organic Chemistry-Carbamates	56
Aldicarb sulfoxide	**EPA 531.1**	Organic Chemistry-Carbamates	56
Alkalinity	**SM 2320B-ALK**	Inorganic Chemistry	13
Aluminum	**EPA 200.8-AL**	Metals	47
Ammonia	**EPA 350.1-NH3**	Inorganic Chemistry-Nutrients	14
Antimony	**EPA 200.8-SB**	Metals	47
Arsenic	**EPA 200.8-AS**	Metals	39
Barium	**EPA 200.8-BA**	Metals	47
Beryllium	**EPA 200.8-BE**	Metals	47
Boron	**EPA 200.7-B**	Metals	47
Bromate	**EPA 300.0-BRO3**	Inorganic Chemistry	16
Bromide	**EPA 300.1-BRIC**	Inorganic Chemistry	16,17
Bromodichloromethane	**EPA 524.2-THM**	Organic Chemistry-THM	54
Bromoform	**EPA 524.2-THM**	Organic Chemistry-THM	54
Cadmium	**EPA 200.8-CD**	Metals	47
Calcium	**EPA 200.7-CA**	Metals	47
Carbaryl (Sevin)	**EPA 531.1**	Organic Chemistry-Carbamates	56
Carbofuran (Furadan)	**EPA 531.1**	Organic Chemistry-Carbamates	56
Chlorate	**EPA 300.0-CLO3**	Inorganic Chemistry	16
Chloride	**EPA 325.2-CL**	Inorganic Chemistry	17

Program Specific Indexes

Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
Chloride	**EPA 300.0-CLIC**	Inorganic Chemistry	17
Chlorite	**EPA 300.0-CLO2**	Inorganic Chemistry	16
Chlorodibromomethane	**EPA 524.2-THM**	Organic Chemistry-THM	54
Chloroform	**EPA 524.2-THM**	Organic Chemistry-THM	54
Chromium	**EPA 200.8-CR**	Metals	47
Chromium-IV	**EPA 218.7-CR6+**	Inorganic Chemistry	41
Cobalt	**EPA 200.8-CO**	Metals	47
Color	**EPA 110.2-L-COLR**	Inorganic Chemistry	18
Conductivity	**EPA 120.1-COND**	Inorganic Chemistry	19
Copper	**EPA 200.8-CU**	Metals	47
Corrosivity	**EPA 1110 CORR**	Inorganic Chemistry	20
Cyanide	**EPA 335.4-CNCL**	Inorganic Chemistry	21
Dalapon	**EPA 515.1**	Organic Chemistry-Herbicides	58
Dibromoacetic acid	**SM 6251B-HAA**	Organic Chemistry-HAA	50
Dichloroacetic acid	**SM 6251B-HAA**	Organic Chemistry-HAA	50
Dinoseb	**EPA 515.1**	Organic Chemistry-Herbicides	58
E. coli	**SM 9223B-Colilert**	Environmental Microbiology	68
Fluoride	**EPA 300.0-FLIC**	Inorganic Chemistry	22

Program Specific Indexes

Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
Hardness	**HARD**	Inorganic Chemistry	44
Heterotrophic Plate Count	**SM 9215B-HPC**	Environmental Microbiology	66
Iron	**EPA 200.7-FE**	Metals	47
Lead	**EPA 200.8-PB**	Metals	47
Legionella	**SM 9260J**	Environmental Microbiology	67
Magnesium	**EPA 200.7-MG**	Metals	47
Manganese	**EPA 200.8-MN**	Metals	47
Mercury	**EPA 245.1-HG**	Metals	40
Methomyl	**EPA 531.1**	Organic Chemistry-Carbamates	56
Molybdenum	**EPA 200.8-MO**	Metals	47
Monobromoacetic acid	**SM 6215B-HAA**	Organic Chemistry-HAA	50
Monochloroacetic acid	**SM 6215B-HAA**	Organic Chemistry-HAA	50
Nickel	**EPA 200.8-NI**	Metals	47
Nitrate+Nitrite	**EPA 353.2-NO2+NO3**	Inorganic Chemistry-Nutrients	23
Nitrite (only)	**EPA 353.2-NO2**	Inorganic Chemistry-Nutrients	23
Odor	**EPA 140.1-ODOR**	Inorganic Chemistry	25
Oxamyl (Vydate)	**EPA 531.1**	Organic Chemistry-Carbamates	56
Pentachlorophenol	**EPA 515.1**	Organic Chemistry-Herbicides	58
Perchlorate	**EPA 314.0-CLO4**	Inorganic Chemistry	26
pH	**EPA 150.1-PH**	Inorganic Chemistry	27
Phosphate	**EPA 365.1-TPO4**	Inorganic Chemistry-Nutrients	28
Picloram	**EPA 515.1**	Organic Chemistry-Herbicides	58
Potassium	**EPA 200.7-K**	Metals	47

Program Specific Indexes

Safe Drinking Water Act (SDWA)
Safe Drinking Water Act (SDWA) – EPA 524.2-VOC

Analyte	Test Code	UPHL Unit	Page Number
Selenium	**EPA 200.8-SE**	Metals	47
Silica	**EPA 370.1-SIO2**	Inorganic Chemistry	29
Silver	**EPA 200.8-AG**	Metals	47
Sodium	**EPA 200.7-NA**	Metals	47
Sulfate	**EPA 300.0-SO4C**	Inorganic Chemistry	30
Sulfide	**EPA 376.2-SULI**	Inorganic Chemistry	31
Thallium	**EPA 200.8-TL**	Metals	47
TOC	**SM 5310B-TOC**	Inorganic Chemistry	51
Total Coliform	**SM 9223B-Colilert**	Environmental Microbiology	68
Total Dissolved Solids (TDS)	**EPA 160.1-TDS**	Inorganic Chemistry	32
Total Suspended Solids (TSS)	**EPA 160.2-TSS**	Inorganic Chemistry	32
Trichloroacetic acid	**SM 6251B-HAA**	Organic Chemistry-HAA	50
Turbidity	**EPA 180.1-TURB**	Inorganic Chemistry	33
UV254	**SM 5910B-UV254**	Inorganic Chemistry	52
Vanadium	**EPA 200.8-V**	Metals	47
Zinc	**EPA 200.8-ZN**	Metals	47
1,1-Dichloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,1-Dichloroethene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,1-Dichloropropene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,1,1-Trichloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,1,2-Trichloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65

65

Program Specific Indexes

Safe Drinking Water Act (SDWA) – EPA 524.2-VOC

Analyte	Test Code	UPHL Unit	Page Number
1,1,1,2-Tetrachloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,1,2,2-Tetrachloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2-Dibromo-3-chloropropane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2-Dichlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2-Dichloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2-Dichloropropane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2-Dichlorotoluene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2,3-Trichlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2,3-Trichloropropane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2,4-Trichlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,2,4-Trimethylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,3-Dichlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,3-Dichloropropane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,3,5-Trimethylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,4-Dichlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,4-Dichlorotoluene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
1,4-Isopropyltoluene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
2,2-Dichloropropane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Benzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Bromobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Bromochloromethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Bromodichloromethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Bromoform	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Bromomethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Carbon tetrachloride	**EPA 524.2-VOC**	Organic Chemistry-VOC	65

Program Specific Indexes

Safe Drinking Water Act (SDWA) – EPA 524.2-VOC

Analyte	Test Code	UPHL Unit	Page Number
Chlorobenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Chlorodibromomethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Chloroethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Chloroform	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Chloromethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
cis-1,2-Dichloroethene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
cis-1,3-Dichloropropene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Dibromomethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Dichlorodifluoromethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Ethylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Ethylene dibromide	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Hexachlorobutadiene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Isopropylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Methylene chloride	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
MTBE	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Napthalene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
n-Butylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
n-Propylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
sec-Butylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Styrene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
tert-Butylbenzene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Tetrachloroethene (PCE)	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Toluene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
trans-1,2-Dichloroethene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
trans-1,3-Dichloropropene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65

Program Specific Indexes

Safe Drinking Water Act (SDWA) – EPA 524.2-VOC
Safe Drinking Water Act (SDWA) – EPA 525.2-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Trichloroethene (TCE)	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Trichlorofluoromethane	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Vinyl chloride	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
Xylene	**EPA 524.2-VOC**	Organic Chemistry-VOC	65
2,4-Dinitrotoluene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
2,6-Dinitrotoluene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
4,4'-DDE	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Acetochlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Alachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Aldrin	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
alpha-Chlordane	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Atrazine	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
bis (2-ethylhexyl) adipate	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
bis (2-ethylhexyl) phthalate	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Benzo (a) pyrene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Bromocil	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Butachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Chlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Cyanazine	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Dichlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Dieldrin	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Endrin	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
EPTC	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
gamma-Chlordane	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60

Program Specific Indexes

Safe Drinking Water Act (SDWA) – EPA 525.2-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Heptachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Heptachlor epoxide	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Heptachlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Hexachlorobenzene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Hexachlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Hexachlorocyclopentadiene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Lindane (gamma-BHC)	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Methoxychlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Metolachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Metribuzin	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Molinate	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Octachlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Pentachlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Pentachlorophenol	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Prometon	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Propachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Simazine	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Terbacil	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Tetrachlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
trans-Nonachlor	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Trichlorobiphenyl	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Trifluralin	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60
Toxaphene	**EPA 525.2-SVOC**	Organic Chemistry-SVOC	60

General Index

Analyte	Method Number	Page#
Alkalinity	EPA 200.8-AL	13
Ammonia	EPA 350.1-NH3	14
Annual Inorganics and Metals (18 parameters)	Type 9 (Primary Inorganics and Metals Chemistry)	34
Arsenic	EPA 200.8-T-AS, EPA 200.8-D-AS	39
Biological Oxygen Demand (BOD)	EPA 405.1-BOD	15
Bromate	EPA 300.1-BRO3	16
Bromide	EPA 300.1-BRIC	16,17
BTEX N	SM 8260B BTEX N	55
Carbamates	EPA 531.1	56
Chemistry Types (analytical groupings)	Total-Chemistry Type 2, Type 3, Type 9	36
Chlorate	EPA 300.1-CLO3	16
Chloride	EPA 325.2-CL	17
Chlorite	EPA 300.1-CLO2	16
Chlorophyll-A	SM 10200H-CH-A	48
Chromium-VI	EPA 218.7	41
Color	EPA 110.2-L-COLR	18
Conductivity	EPA 120.1-COND	19
Corrosivity	EPA 1110-CORR	20
Cyanide	EPA 335.4-CNCL	21
Fluoride	4500C-F	22
Geosmin and MIB	EPA 525.2-ODOR	57

General Index

Analyte	Method Number	Page#
Haloacetic Acids (HAA)	EPA 6251-HAA	50
Hardness	HARD	44
Herbicides	EPA 515.1-Herbicides, EPA 8151-Herbicides	58
Heterotrophic Plate Count	SM 9215B-HPC	66
Lead (air samples)	EPA 200.8-T-Pb	43
Lead and Copper	EPA 200.8-Type 8 Metals (T-PB and T-CU)	42
Legionella	SM 9260J	67
Mercury	EPA 245.1-T-HG, EPA 245.1-D-HG, EPA 7471B (T-HG or D-HG)	40
Metals, Total and Dissolved (analytical groupings)	Total-Metals Type 7, Type 9, RCRA Types, Filtered-Metals Type 3, Type 4, 6010-Metals (Soil)	47
New Drinking Water Source (46 parameters)	Type 7 (Total Inorganics and Metals Chemistry	35
Nitrate and Nitrite	EPA 353.2-NO2+NO3	23
Nitrite (only)	353.2-NO2	23
Nitrogen, Total Dissolved (DTN)	SM 4500N	24
Nutrients, Total and Dissolved (analytical groupings)	Total-Nutrients Type 2, Type 3, Type 4, Type 6; Filtered Nutrients Type 9	37
Odor (Threshold Odor Number, TON)	EPA 140.1-ODOR	25
Oil and Grease	EPA 1664-O/G	59
Perchlorate	EPA 314.0-CLO4	26
Periphyton	SM 10300C (modified)	53
Pesticides and SVOCs	EPA 525.2-SVOC, EPA 625-SVOC, EPA 8270-SVOC	60
pH	EPA 150.1-PH	27
Phosphate	EPA 365.1-TPO4	28
Polychlorinated Biphenyls and Organochlorine Pesticides	EPA 608-PCB/OcPest, EPA 8081-OcPest, EPA 8082-PCBs	61

General Index

Analyte	Method Number	Page#
Settable Solids (SS)	EPA 160.5-SS	32
Silica	EPA 370.1-SIO2	29
Sulfate	EPA 300.0-SO4C or EPA 375.2-SO4	30
Sulfide	EPA 376.2-SULI	31
Surfactants	SM 5540C-Surfactants	62
Total Coliform and *E. coli*	SM 9223B-Colilert	68
Total Dissolved Solids (TDS)	EPA 160.1-TDS	32
Total Organic Carbon (TOC)	SM 5310B-TOC	51
Total Petroleum Hydrocarbons (TPH)	EPA 8015-TPH	63
Total Suspended Solids (TSS)	EPA 160.2-TSS	32
Total Volatile Solids (TVS)	EPA 160.4-TVS	32
Toxic Characteristic Leaching Procedure-Metals	TCLP-Metals	46
Toxic Characteristic Leaching Procedure-Organics	TCLP-Organics	64
Trihalomethanes (THM)	EPA 524.2-THM	54
Turbidity	EPA 180.1-TURB	33
UV254	SM 5910B-UV254	52
VOCs	EPA 524.2-VOC, EPA 624-VOC, EPA 8260-VOC	65