Utah
Department of Health

Bureau of Chemical and Environmental Services

Client Service Manual

Produced March 2005
Revised January 2010

Unified State Laboratories: Public Health

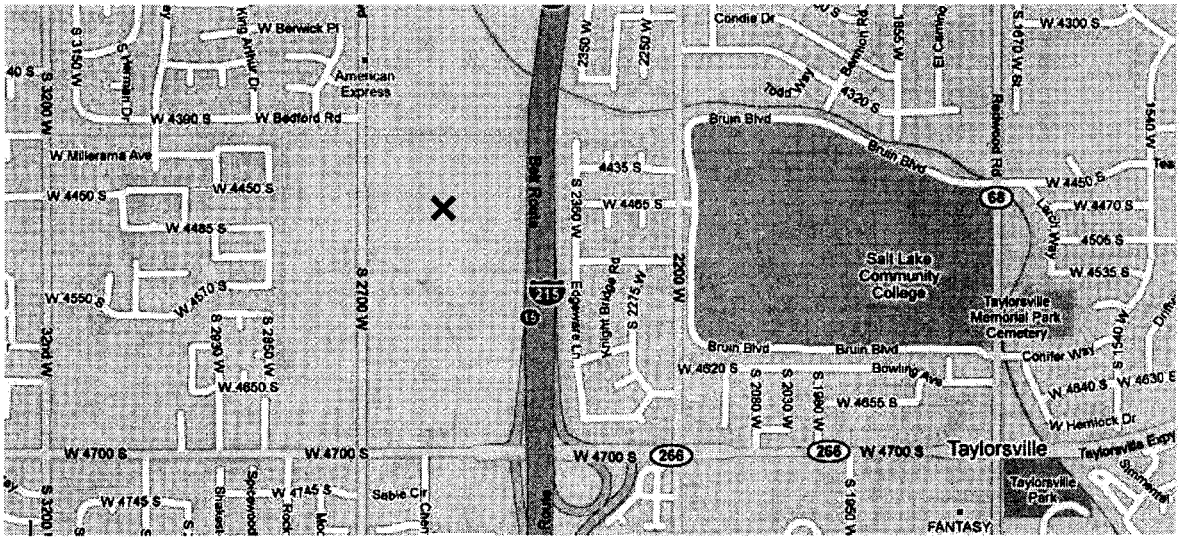
BASIC INFORMATION

CONTACT US:

Address: Unified State Laboratories: Public Health
4431 South 2700 West
Taylorsville, UT 84119
Phone: (801) 965-2400
FAX: (801) 969-3704
Website: http://health.utah.gov/lab/chemistry/index.html

Map of new location:

Unified State Laboratories: Public Health
4431 South 2700 West
Taylorsville, UT 84119
Telephone (801) 965-2400



"**X**" marks our new location.

BUREAU OF CHEMISTRY AND ENVIRONMENTAL SERVICES KEY PERSONNEL:

Sanwat Chaudhuri: Bureau Director
Steve Dickson: Section Chief of Inorganic Chemistry
Jack Oman: Section Chief of Organic Chemistry, Radiochemistry, and Water Microbiology

GENERAL LAB PRACTICES AND POLICES:

Our bureau is responsible for the receipt 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 and safety 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.

Laboratory business hours are Monday-Thursday 7:00 AM- 6:00 PM. We are closed on Fridays and holidays with the exception of emergencies.

Labeled sample collection materials such as water bottles, glass vials, and solids containers must be obtained from the laboratory (free of charge). The laboratory tests each lot of containers to ensure they are contamination free. 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.

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.

Clean Water Act Summary

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 issues discharge permits for publicly owned treatment works, approves engineering plans associated with publicly owned treatment works, performs total maximum daily load studies on lakes and streams, and collects fish from these water bodies for the analysis of mercury, cooperates with water quality research groups at the state and federal level, and conducts other water quality studies. DWQ'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.

The Unified State Laboratories: Public Health cooperates with the Division and performs requested water and soil analyses using EPA approved methods. Many of these groups of analyses have been assigned an "Lab Type" number which can be used to substitute for the actual list of individual analytes. The assigned "Types" performed for the DWQ are listed below:

Test(s)	Method	Please Request Lab Type

Resource Conservation and Recovery Act Summary
Hazardous Waste and Emergency Response

The Resource Conservation and Recovery Act (RCRA) is a federal law which defines solid wastes and hazardous wastes, and sets requirements for the proper disposal of each.

The Utah Division of Solid and Hazardous Waste (DSHW) within the Department of Environmental Quality. Their mission statement is to protect public health and the environment by ensuring proper management of solid and hazardous wastes within the State of Utah.

The Utah Division of Water Quality (DERR) within the Department of Environmental Quality is charged with protecting public health and Utah's environment through cleanup of chemically contaminated sites, and by ensuring that underground storage tanks are used properly and by providing chemical usage and emission data to the public and local response agencies.

The Unified State Laboratories: Public Health use sample analysis methods outlined in SW-846 or from other approved EPA methods. The following methods may be requested.

Test(s)	Method	Please Request Lab Type
PCBs in Oil	EPA Method 8082	PCBs in Oil
PCBs in Water	EPA Method 608	PCBs in Water
Semi-Volatiles	EPA Method 8270	
Acid Extractable		(15 organic analytes)
Base Neutrals		(54 organic analytes)
Total Petroleum Hydrocarbons	EPA Method	TPH
Toxicity Characteristic Leach Procedure	EPA Method 1311	(8 metals, 31 organic analytes)
Volatiles	EPA Method 8260 B	(43 organic analytes)

Safe Drinking Water Act Summary

The Safe Drinking Water Act (SDWA) is a federal law which applies to all public water systems. A system is considered "public" if it serves at least 15 connections. It may also be a public water system if it serves 25 or more people at least 60 days out of each year.

Water systems on tribal lands are regulated by EPA Region 8 out of Denver. All other public water systems are regulated by the Utah Division of Drinking Water (DDW) within the Utah Department of Environmental Quality. DDW requires engineering plan approval and source protection programs to begin if at least 8 connections will be served initially. DDW's mission is to protect the public against waterborne health risks through education, assistance, and oversight.

The Unified State Laboratories: Public Health is reviewed by EPA Region 8 and 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).

Test(s)	Method	Please Request Lab Type
Annual Inorganics and Metals	18 Analytes	Chemistry Type 9
Carbamates	EPA 531.1	(10 analytes)
Chlorinated Acid Herbicides	EPA 515.1	(7 analytes)
Inorganic Disinfection Byproducts	EPA 300.1	(4 analytes
Lead and Copper	EPA Method 200.8	Metals Type 8
HAAs (Haloacetic Acids)	Standard Method 6251 B	(6 analytes)
New Source Chemistry	46 Inorganic Analytes	Chemistry Type 7
PCBs	EPA Method 508A	
Perchlorate	EPA Method 314.0	
Pesticides	EPA Method 525.2	(19 analytes)
Radiochemistry	(currrently subcontracted)	
Gross Alpha	(currrently subcontracted)	
Gross Beta	(currrently subcontracted)	
Uranium	EPA Method 200.8	Uranium
Radium 226	(currrently subcontracted)	
Radium 228	(currrently subcontracted)	
Radon	(currrently subcontracted)	
Regulated Semivolatiles	EPA Method 525.2	(19 analytes)
THMs (Trihalomethanes)	EPA Method 524.2	(4 analytes)
Regulated VOCs (Volatile Organic Chemicals)	EPA Method 524.2	(21 analytes)
Unregulated VOCs	EPA Method 524.2	(24 Analytes)

Water Microbiology		
Coliform by Colilert	Standard Method 9223 B	

Test(s)	**Method**	**Please Request Lab Type**
Water Microbiology		
Coliform Presence/Absence	Standard Method 9222 B Standard Method 9221 D	
Hetereotrophic Plate Count	Standard Method 9215 B	
Legionella	Standard Method 9260 J	
Protozoa/Cryptosporidium	EPA Method 1623	
Fecal Coliform by Membrane Filter	EPA Method 9222 D	
Total Coliform by Membrane Filter	EPA Method 9222 B	
Geosmin	EPA Method 525.2	Odor by 525.2

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Name: **Haloacetic Acids (HAA)**

Test Code: **6251B-HAA**

Grouping: **Disinfection By-Products**

Application: Water systems using chlorine or bromine for disinfection.

Analytes:
Dibromoacetic acid
Dichloroacetic acid
Monobromoacetic acid
Monochloroacetic acid
Trichloroacetic acid

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, and fill the remaining portion if bubbles found. There must be no headspace.

Required Containers/Volume: 3/40 mL vials

Preservative and Handling: 65 mg NH_4Cl, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 14 days to extract and 7 days to analyze

Method Technology: Liquid-liquid extraction followed by GC detection

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Name: **Trihalomethanes (THM)**

Test Code: **524.2-THM**

Grouping: **Disinfection By-Products**

Application: Water systems using chlorine or bromine for disinfection.

Analytes:
Bromodichloromethane
Bromoform
Chlorodibromomethane
Chloroform

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, and fill the remaining portion if bubbles found. There must be no headspace.

Required Containers/Volume: 3/40 mL vials

Preservative and Handling: 4 mg $Na_2S_2O_3$, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 14 days

Method Technology: Purge and trap technique followed by GCMS detection

Name: **Volatile Organic Compounds (VOCs)**

Test Codes: **524.2-VOC , 624-VOC or 8260-VOC**

For lists of analytes see Program Specific Indexes

NOTE: **Prior to collection of 624 or 8260 samples, analysis must be scheduled at 801-584-8400, due to complex nature of testing procedures**

Instructions for Collection: **Caution: For surface waters and hazardous samples, check to see if HCl preservative reacts with source water (foams, effervesces, etc.) If reacts, do not add HCl.** For all others, 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 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
*must use 4/40 mL vials–special prepared for chlorinated sites
Hazardous Water – 4/40 mL vials, plus 1 trip blank
*must use 4/40 mL vials–special prepared for chlorinated sites
Hazardous Soil – 4 oz. glass container with Teflon-lined lid

Preservative and Handling:
Drinking Water – 25 mg ascorbic acid, HCl to pH <2
Surface Water – 10 mg $Na_2S_2O_3$ for chlorinated sites
Hazardous Water – 10 mg $Na_2S_2O_3$ for chlorinated sites
All sample types, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 14 days except Soil 14 days to extract and 14 days to analyze

ORGANIC CHEMISTRY

Method Technology: Purge and trap technique followed by GCMS detection

Name: **Pesticides and other Semi-Volatile Organic Compounds (SVOCs)**

Test Codes: **525.2-SVOC , 625-SVOC or 8270-SVOC**

For lists of analytes see Program Specific Indexes

NOTE: **Prior to collection of 525.2, 625 or 8270 samples, analysis must be scheduled at 801- 584-8400, due to complex nature of testing procedures**

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.

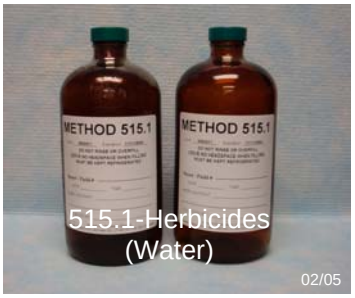
Required Containers/Volume:
Drinking Water – 2/1L amber glass bottles + acid vials
Surface Water – 2/1L amber glass bottles
Hazardous Water – 2/1L amber glass bottles
Hazardous Soil – 4 oz. amber glass container with Teflon-lined lid

Preservative and Handling:
Drinking Water – HCl to pH <2, 50 mg sodium sulfite
Surface Water – No preservative
Hazardous Water – No preservative
All sample types, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times,
525.2 -14 days to extract and 30 days to analyze
625 and 8270 – 7 days to extract and 40 days to analyze
Soil - 14 days to extract and 40 days to analyze

Method Technology: Liquid-liquid extraction followed by GCMS detection

Name: **Herbicides (Chlorinated Organic Acids)**

Test Code: **515.1-Herbicides or 8151-Herbicides**



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

Instructions for Collection: 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.

Required Containers/Volume: Water – 2/1L amber glass bottles
Soil – 4 oz. amber glass container with Teflon-lined lid

Preservative and Handling: 30 mg $Na_2S_2O_3$ if chlorinated, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** l holding times, 14 days to extract and 28 days to analyze

Method Technology: Liquid-liquid extraction followed by GC detection

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Name: **Carbamates (Insecticides and Aldicarbs)**

Test Code: **531.1**

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 and Handling: 1.2 mL Monochloroacetic acid, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Aqueous injection HPLC with post column derivation

ORGANIC CHEMISTRY

Name: **Phase II / Phase V**

Test Codes: **VOCs* , Pesticides , SVOCs , Herbicides , and Carbamates**

Grouping: **Organic Testing**

Application: Drinking Water

For lists of analytes see Program Specific Indexes

Safe Drinking Water Act (SWDA)……..page 56

NOTE: **Prior to collection of Phase II / Phase V Organic Testing must be scheduled at 801 584-8400, due to complex nature of testing procedures.**

***Phase II / Phase V may be performed with or without VOC testing.**

Instructions for Collection: For VOC vials, add 2 drops HCl acid to each vial, more drops needed if highly buffered source. For 525.2-SVOC, pour entire small vial of acid into each sample bottle.

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

Required Containers/Volume:
VOCs - 3/40mL vials, plus 1 trip blank
Pesticides and SVOCs - 2/1L amber glass bottles + acid vials
Herbicides - 2/1L amber glass bottles
Carbamates - 40 mL amber glass vial

Preservative and Handling:
Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding times,
VOCs - 14 days
Pesticides and SVOCs - 14 days to extract and 30 days to analyze
Herbicides - 14 days to extract and 28 days to analyze
Carbamates - 28 days

Methods Technologies:
VOCs - Purge and trap technique followed by GCMS detection
SVOCs - Liquid-solid extraction followed by GCMS detection
Herbicides - Liquid-liquid extraction followed by GC detection
Carbamates - Aqueous injection HPLC with post column derivation

ORGANIC CHEMISTRY

Name: **Total Petroleum Hydrocarbons (TPH)**

Test Code: **8015-TPH**

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

Total TPH (GRO + DRO + ORO)

Instructions for Collection: 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 – 2/40 mL vials
Soil – 4 oz. glass container with Teflon-lined lid

Preservative and Handling: No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 14 days to extract and 40 days to analyze

Method Technology: Extraction technique followed by GCFID detection

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Name: **Benzene, Toluene, Ethylbenzene, Xylene, and Naphtalene (BTEX N)**

Test Code: **BTEX N**

Analytes: **B**enzene
Toluene
Ethylbenzene
Xylene
Naphtalene

Instructions for Collection: 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 – 2/40 mL vials
Soil – 4 oz. glass container with Teflon-lined lid

Preservative and Handling: No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 14 days

Method Technology: Purge and trap technique followed by GCMS detection

ORGANIC CHEMISTRY

Name: **Polychlorinated Biphenyls (PCBs) and Organochlorine**

Test Codes: **608-PCB/OcPest or 8081-PCB/OcPest**

For lists of analytes see Program Specific Indexes

Clean Water Act (CWA)……..page 41

Resource Conservation and Recovery Act (RCRA)…….page 48

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
Hazardous Water – 1 L amber glass bottle
Hazardous Soil – 4 oz. amber glass container with Teflon-lined lid
Hazardous Oil – 4 oz. amber glass container with Teflon-lined lid

Preservative and Handling: No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 7 days to extract and 40 days to analyze, except Soil 14 days to extract and 40 days to analyze

Method Technology: Extraction technique followed by GCMS detection

ORGANIC CHEMISTRY

Name: **Glycols (Ethylene and Propylene Glycols)**

Test Code: **EPG**

Analytes: Ethylene Glycol
Propylene Glycol

Instructions for Collection:	Allow source to flow for a few minutes until water temperature stabilizes. Slowly fill to top of container.
Required Containers/Volume:	Water – 2/40 mL vials Soil – 4 oz. glass container with Teflon-lined lid
Preservative and Handling:	No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days
Method Technology:	Aqueous injection with GCFID detection

Name: **Surfactants**

Test Code: **5540C-Surfactants**

Grouping: **New Drinking Water Source**

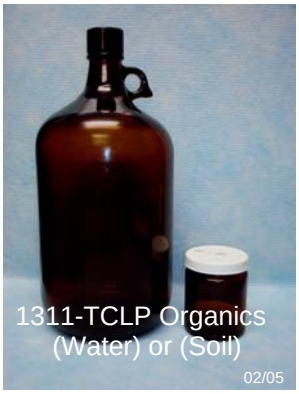
Analyte: Total Surfactants

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 and Handling:	No preservative, refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 48 hours
Method Technology:	Extraction technique followed by MBAS detection

ORGANIC CHEMISTRY

Name: **RCRA Toxic Characteristic Leaching Procedure (TCLP)**

Test Codes: **TCLP-Organics (VOCs, SVOCs, Pesticides, and Herbicides)**



Grouping: **Organic Testing (RCRA)**

Application: Land Disposal Restrictions Rule and Toxicity Characteristics, used to determine if characteristics of a waste pose an unacceptable risk to the environment or ground water

NOTE: **Prior to collection of 1311-TCLP (water and soil) or 1332-TCLP (oil), analysis must be scheduled at 801 584-8400 due to complex nature of testing procedures**

Analytes:

Volatile Organic Compounds (VOCs)

D029 1,1 - Dichloroethene
D028 1,2 - Dichloroethane
D027 1,4 - Dichlorobenzene
D018 Benzene
D019 Carbon Tetrachloride
D021 Chlorobenzene
D022 Chloroform
D035 Methyl Ethyl Ketone
D039 Tetrachloroethene
D040 Trichloroethene
D043 Vinyl Chloride

Pesticides

D020 Chlordane
D012 Endrin
D031 Heptachlor
D031 Heptachlor Epoxide
D013 Lindane
D014 Methoxychlor
D015 Toxaphene

Herbicides

D016 2,4 - D
D017 2,4,5 - TP (Silvex)

Semi-Volatile Organic Compounds (SVOCs)

D030 2,4 - Dinitrotoulene
D041 2,4,5 - Trichlorophenol
D042 2,4,6 - Trichlorophenol
D032 Hexachlorobenzene
D033 Hexachlorobutadiene
D034 Hexachloroethane
D024 m - Cresol
D036 Nitrobenzene
D023 o - Cresol
D025 p - Cresol
D037 Pentachlorophenol
D038 Pyridine

Instructions for Collection: Slowly fill to top of container.

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

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times:
SVOCs - 7 days to TCLP and 40 days to analyze
VOCs - 14 days to TCLP and 40 days to analyze

Method Technology: Leaching procedure and extraction technique followed by GCMS detection

INORGANIC CHEMISTRY

Name: **New Drinking Water Source (46 parameters)**

Test Code: **Type 7 (Total Inorganics and Metals Chemistry)**

Analytes:

Sulfate
NO2+NO3
Cyanide
D-Calcium
D-Potassium
Bicarbonate
Carbonate

Total Suspended Solids (TSS)
Total Organic Carbon (TOC)
Ammonia
D-Magnesium
D-Sodium
Carbon Dioxide
Fluoride

D = Dissolved

T = Total

L = Lab measured

F = Field measured

NOTE: **Prior to collection of New Drinking Water Source samples, analysis must be scheduled with the laboratory at 801 584-8400, due to complex nature of testing procedures**

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 500 mL Nutrient Analysis – plastic bottle 1 L Total Chemistry – unpreserved plastic bottle 250 mL Color – plastic bottle 1 L Surfactant – amber glass bottle 200 mL TOC – amber glass bottle 250 mL Total Metals – plastic bottle 500 mL Cyanide – plastic bottle
Preservative and Handling:	Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab, must be received at lab within 24 hours of collection time**
Methods Technologies:	Electrometric, Nephelometric, Gravimetric, Titration, Flow Injection Colorimetry, Chromatography, ICP, and ICPMS

INORGANIC CHEMISTRY

Name: **Annual Inorganics and Metals (18 parameters)**

Test Code: **Type 9 (Primary Inorganics and Metals Chemistry)**

Analytes:

Cyanide	Fluoride
Turbidity (NTU)	Total Dissolved Solids (TDS)
T-Arsenic	T-Barium
T-Berylium	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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab, must be received at lab within 24 hours of collection time**

Methods Technologies: Nephelometric, Gravimetric, Flow Injection Colorimetry, Ion Chromatography, ICP, and ICPMS

Name: **Lead and Copper [Pb] and [Cu]**

Test Code: **200.8-Type 8 Metals (T-PB and T-CU)**

Grouping: **Total-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 top of container.

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

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 14 days to arrive at lab for preservation with HNO_3 to pH <2 and 6 months to analyze

INORGANIC CHEMISTRY

Method Technology: Digestion technique followed by ICPMS detection

Name: **Arsenic [As]**

Test Code: **200.8-T-AS , 200.8-D-AS**

Grouping: **Total-Metals**

Applications: Arsenic Rule, Drinking Water
Surface Water
Hazardous Samples

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

Name: **Mercury [Hg]**

Test Codes: **245.1-T-HG , 245.1-D-HG , 7471A (T-HG or D-HG)**

Grouping: **Total-Metals**

Applications: Drinking Water
Surface Water
Hazardous Samples

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
Soil – 4 oz. glass container with Teflon-lined lid

Preservative and Handling: HNO_3 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Digestion technique followed by Cold Vapor AA detection

INORGANIC CHEMISTRY

Name: **Total-Metals and Dissolved-Metals (analytical groupings)**

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

Type 7
T-Aluminum
T-Arsenic
T-Barium
T-Cadmium

Type 3
D-Aluminum
D-Arsenic
D-Barium
D-Cadmium

RCRA 8+4
T-Arsenic
T-Barium
T-Cadmium
T-Chromium
T-Lead
T-Mercury
T-Selenium
T-Silver

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

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 Soil – 4 oz. glass container with Teflon-lined lid
Preservative and Handling:	HNO_3 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 180 days to analyze, except Mercury 28 days to analyze
Methods Technologies:	Digestion techniques (except for Drinking Water) followed by ICP, ICPMS, and Cold Vapor AA detections

INORGANIC CHEMISTRY

Name: **Ammonia [NH_3]**

Test Code: **350.3-NH3**

Groupings: **Total-Nutrients**

Applications: Drinking Water
Surface Water

Analyte: 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 and Handling: H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Digestion technique followed by Flow Injection Colorimetry

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Name: **Phosphate [PO_4]**

Test Codes: **365.1-TPO4 , 365.1-D-TP**

Groupings: **Total-Nutrients**
Filtered-Nutrients

Applications: Drinking Water
Surface Water

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

NOTE: **Prior to collection of Phospate (Ortho), analysis must be scheduled with the laboratory**

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 and Handling: H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days, for Phosphate (Ortho) contact laboratory

Method Technology: Digestion technique followed by Flow Injection Colorimetry

INORGANIC CHEMISTRY

Name: **Nitrate and Nitrite [NO_3+NO_2] , Nitrite [NO_2]**

Test Codes: **353.2-NO2+NO3 , 353.2-NO2**

Groupings: **Total-Nutrients**
Filtered-Nutrients

Applications: Drinking Water
Surface Water

Analytes: Nitrate/Nitrite (NO2+NO3)

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

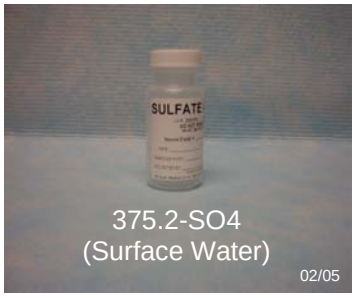
Preservative and Handling: Nitrate – H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Nitrite – No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 48 hours

Method Technology: Flow Injection Colorimetry

Name: **Sulfate [SO_4]**

Test Codes: **300.0-SO4C or 375.2-SO4**



Applications: Drinking Water
Surface Water

Analyte: 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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Ion Chromatography and Flow Injection Colorimetry

INORGANIC CHEMISTRY

Name: **Total-Nutrients and Dissolved-Nutrients (analytical groupings)**

Test Codes: **Total-Nutrients Type 2 , Type 3 , Type 4 , Type 6**

Filtered-Nutrients Type 9

Type 2
Ammonia
Phosphate (T-PO4)

Type 3
Ammonia
Phosphate (T-PO4)
Nitrate+Nitrite (NO2+NO3)

Type 4
Ammonia
Phosphate (T-PO4)
Nitrate+Nitrite (NO2+NO3)

Type 6
Phosphate (T-PO4)
Nitrate+Nitrite (NO2+NO3)

Type 9
Phosphate (D-TP)
D-Nitrate+Nitrite (NO23)
Dissolved Total Nitrogen (D-TN)

D = Dissolved

T = Total

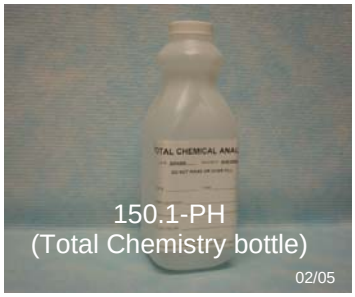
NOTE: To test for Dissolved analytes, field filtration must be done at time of sample collection and Filtered-Nutrients bottle used

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 and Handling:	H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days
Methods Technologies:	Digestion techniques (except for Nitrate+Nitrite) followed by Flow Injection Colorimetry

INORGANIC CHEMISTRY

Name: **pH**

Test Code: **150.1-pH**



Grouping: **Total-Chemistry**

Applications: Drinking Water
Surface Water

Analyte: 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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 24 hours

Method Technology: Electrometric Measurement

Name: **Conductivity**

Test Code: **120.1-COND**

Grouping: **Total-Chemistry**

Applications: Total-Metals and Filtered-Metals
Corrosivity
Radiologic Testing

Analyte: 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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Specific Conductance

Name: **Corrosivity**

Test Code: **CORR**

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

Required Containers/Volume: 250 mL Total Metals – plastic bottle (see page 16)
1 L Total Chemistry – plastic bottle (see page 29)

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

Name: **Color**

Test Code: **110.2-COLR**

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

Grouping: **New Drinking Water Source**

Applications: Drinking Water
Surface Water

Analyte: Color

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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 48 hours

Method Technology: Flow Injection Colorimetry

Name: **Odor**

Test Code: **140.1-ODOR**

Grouping: **New Drinking Water Source**

Applications: Drinking Water
Surface Water

Analyte: Odor, Threshold Odor Number (TON)

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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 24 hours

Method Technology: Odor Threshold (Consistent Series)

Name: **Hardness (Total Hardness as $CaCO_3$)**

Test Code: **HARD**

Note: Hardness requires testing of Calcium and Magnesium

Required Containers/Volume: 250 mL Total Metals – plastic bottle (see page 16)

Method Technology: Calculation: Based on Calcium and Magnesium levels

INORGANIC CHEMISTRY

Name: **Bromide [Br] , Chloride [Cl]**

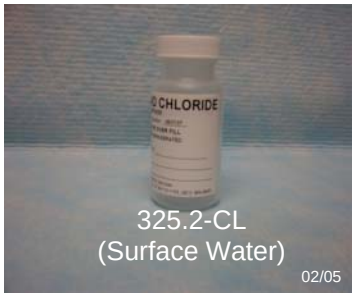
Test Codes: **300. 1 BRIC , 300.0-CLIC or 325.2-CL**

Grouping: **Disinfectants**

Applications: Drinking Water
Surface Water

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

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 and Chloride – unpreserved plastic bottle
120 mL Sulfate – unpreserved plastic bottle (also applicable)
1 L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Ion Chromatography and Flow Injection Colorimetry

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Name: **Bromate [BrO_3] , Chlorate [ClO_3] , Chlorite [ClO_2]**

Test Codes: **300.0-BRO3 , 300.0-CLO3 , 300.0-CLO2**

Grouping: **Disinfection By-Products**

Applications: Drinking Water
?Not sure we should delete this. Steve.

Analytes: Bromate
Chlorate
Chlorite

NOTE: **Prior to collection, analysis must be scheduled with the laboratory**

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

Required Containers/Volume: 500 mL Bromate, Chlorate, Chlorite – amber PVC bottle

Preservative and Handling: 25 mg Ethylenediamine, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 28 days to analyze, except Chlorite 14 days to analyze

Method Technology: Ion Chromatography

INORGANIC CHEMISTRY

Name: **Perchlorate [ClO_4]**

Test Code: **314.0-CLO4 and 314.1-CLO4**

Application: Drinking Water

Analytes: [28] 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 and Handling:	Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days
Method Technology:	Ion Chromatography

Name: **Cyanide [CN]**

Test Code: **335.4-CNCL**

Applications:	Drinking Water Surface Water
Analyte:	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 and Handling:	2g NaOH to pH >12, ascorbic acid in the presence of residual chlorine, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 14 days
Method Technology:	Flow Injection Colorimetry

INORGANIC CHEMISTRY

Name: **Fluoride [F]**

Test Code: **4500C-F**

300.0 – F EPA certification is pending.

Application:	Drinking Water Surface Water
Analyte:	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:	500 mL Fluoride – unpreserved plastic bottle
Preservative and Handling:	Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days
Method Technology:	Flow Injection Colorimetry

NOTE : THERE HAS BEEN SOME DISCUSSION ABOUT DROPPING THIS TEST. Should we drop it? Steve.

Name: **Sulfide [S]**

Test Code: **376.2-SULI**

INORGANIC CHEMISTRY

Name: **Total Organic Carbon (TOC) , UV254**

Test Codes: **5310B-TOC , 5910B-UV254**

Grouping: **Total-Nutrients**
Water Treatment Technique

Applications: Drinking Water
Surface Water

Analytes: TOC
UV254

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: 200 mL TOC – amber glass bottle
200 mL UV254 – amber glass bottle

Preservative and Handling: TOC – H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

UV254 – No preservative, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 48 hours

Method Technology: Combustion-Infrared Detection and UV Absorbance

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Name: **Alkalinity**

Test Code: **2320B-ALK**

Applications: 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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 14 days

Method Technology: pH Titration and Calculation

INORGANIC CHEMISTRY

Name: **Biological Oxygen Demand (BOD)**

Test Codes: **405.1-BOD , CBOD (Carbonate buffered BOD)**

Applications: Drinking Water
Surface Water

Analytes: BOD5 (5 day)
CBOD (Carbonate buffered BOD, 5 day)

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

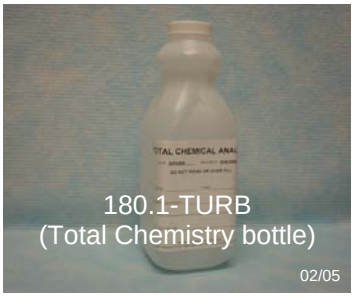
Required Containers/Volume: 2 L BOD – unpreserved plastic bottle

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 48 hours

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

Name: **Turbidity**

Test Code: **180.1-TURB**



Grouping: **Total-Chemistry**
Water Treatment Technique

Applications: Drinking Water
Surface Water

Analyte: 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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 48 hours

Method Technology: Nephelometric Absorbance

INORGANIC CHEMISTRY

Name: **Chemical Oxygen Demand (COD)**

Test Code: **410.4-COD**

Applications: Drinking Water
Surface Water

Analyte: COD

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 and Handling: H_2SO_4 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 28 days

Method Technology: Spectrophotometry

Name: **Chlorophyll-A**

Test Code: **10200H-CH-A**

Applications: Surface Water

Analyte: Chlorophyll-A

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. Filter 25 to 500 mL through glass fiber filter then place filter in opaque container. Also, make sure to record sample volume filtered on test request form.

Required Containers/Volume: Chlorophyll-A filter – store in opaque container (eg, film canister)

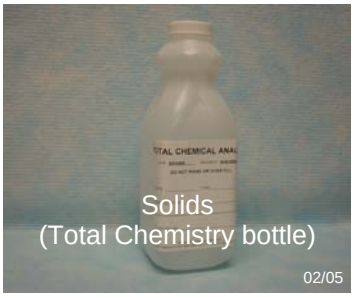
Preservative and Handling: Keep frozen, **recommend next day receipt at lab,** total holding time 3 weeks

Method Technology: Homogenization followed by Spectrophotometry

INORGANIC CHEMISTRY

Name: **Solids**

Test Codes: **160.1-TDS , 160.2-TSS , 160.4-TVS , 160.5-SS**



Applications: Drinking Water
Surface Water

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

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

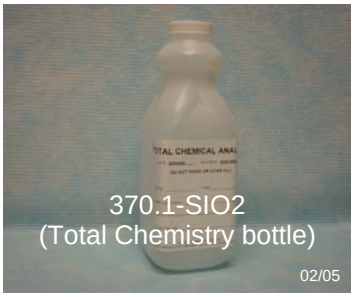
Required Containers/Volume: 1 L Total Chemistry – unpreserved plastic bottle

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** holding times, 7 days to analyze, except SS 48 hours to analyze

Method Technology: Gravimetric detection

Name: **Silica [SiO_2]**

Test Code: **370.1-SIO2**



Applications: Drinking Water
Surface Water

Analyte: Silica (SIO2)

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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 28 days

Method Technology: Flow Injection Colorimetry

INORGANIC CHEMISTRY

Name: **Total-Chemistry (analytical groupings)**

Test Codes: **Total-Chemistry Type 2 , Type 3 , Type 9**

Type 2
pH
Total Suspended Solids (TSS)
Bicarbonate
Carbon Dioxide
Carbonate
Chloride
Hydroxide
Sulfate
Alkalinity
Turbidity (NTU)
L-Specific Conductance
Total Dissolved Solids (TDS)

Type 3
pH
Total Suspended Solids (TSS)
D-Calcium
D-Magnesium
D-Potassium
D-Sodium
Bicarbonate
Carbon Dioxide
Carbonate
Chloride
Hydroxide
Sulfate
Alkalinity
Hardness
Turbidity (NTU)
L-Specific Conductance
Total Dissolved Solids (TDS)
Carbonate Solids

Type 9
Cyanide
Fluoride
Turbidity (NTU)
Total Dissolved 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

D = Dissolved

T = Total

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

Type 9 also under Annual Inorganics and Metals (see page 14)
1 L Total Chemistry – unpreserved plastic bottle
250 mL Total Metals – plastic bottle
500mL Cyanide – plastic bottle

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 48 hours

Methods Technologies: Electrometric, Nephelometric, Gravimetric, Titration, Flow Injection Colorimetry, Ion Chromatography, ICP, and ICPMS

INORGANIC CHEMISTRY

Name: **Chromium-VI [Cr^{6+}]**

Test Code: **3500CD-CR6+**

Analyte: Chromium-VI (Hexavalent)

NOTE: **Prior to collection of Chromium-VI samples, analysis must be scheduled at 801 584-8400, due to complex nature of testing procedures**

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 – unpreserved plastic bottle
1 L Total Chemistry – unpreserved plastic bottle (also applicable)

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 24 hours

Method Technology: Flow Injection Colorimetry

Name: **Uranium [U]**

Test Codes: **200.8-UUMS (Total) , 200.8-UFMS (Dissolved)**

Applications: Drinking Water
Surface Water

Analytes: T-Thallium
T-Uranium (Unfiltered)
D-Uranium (Filtered)

Instructions for Collection: 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: 250 mL Total Metals – plastic bottle
2 L RadioChem – plastic bottle (also applicable for Uranium)

Preservative and Handling: HNO_3 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 180 days

Method Technology: Digestion techniques (except for Drinking Water) followed by ICPMS detection

INORGANIC CHEMISTRY

Name: **RCRA Toxic Characteristic Leaching Procedure (TCLP)**

Test Code: **TCLP- Metals**

Grouping: **Inorganic Testing (RCRA)**

Application: Land Disposal Restrictions Rule and Toxicity Characteristics, used to determine if characteristics of a waste pose an unacceptable risk to the environment or ground water

NOTE: **Prior to collection of 1311-TCLP (water and soil) or 1332-TCLP (oil), analysis must be scheduled at 801-883-4655 due to complex nature of testing procedures**

Analytes:

RCRA 8		RCRA 8+4		RCRA 8+4+6	
D004	T-Arsenic	D004	T-Arsenic	D004	T-Arsenic
D005	T-Barium	D005	T-Barium	D005	T-Barium
D006	T-Cadmium	D006	T-Cadmium	D006	T-Cadmium
D007	T-Chromium	D007	T-Chromium	D007	T-Chromium
D008	T-Lead	D008	T-Lead	D008	T-Lead
D009	T-Mercury	D009	T-Mercury	D009	T-Mercury
D010	T-Selenium	D010	T-Selenium	D010	T-Selenium
D011	T-Silver	D011	T-Silver	D011	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

*Other metals may be analyzed, but must be specified on test request form. For complete list of metals see indexes or contact us 801-584-8400.

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 and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, Metals - 7 days to TCLP and 180 days to analyze except Mercury - 7 days to TCLP and 28 days to analyze

Method Technology: Leaching procedure and extraction technique followed by ICP, ICPMS, and Cold Vapor AA detections

ENVIRONMENTAL MICROBIOLOGY

Name: **Total Coliform , Fecal Coliform and *E. coli***

Test Codes: **9223B-Colilert , 9222B/9221E-mENDO+EC , 9222B/9222D-mENDO+mFC**

Applications: Drinking Water
Surface Water

Analytes: Total Coliforms
Fecal Coliforms
E. coli (Colilert test only)

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 Water Bacteriology – sterile plastic bottle

Preservative and Handling: 10 mg $Na_2S_2O_3$, refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 30 hours, except for Surface Water samples 8 hours

Method Technology: Chromofluorogenic, Membrane Filtration, and Fermentation

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Name: **Heterotrophic Plate Count (HPC)**

Test Code: **9215B-HPC**

Applications: Drinking Water
Pool/Spa Water
Reagent Water (Deionized, RO, Distilled, etc.)
Surface Water

Analyte: 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: 120 mL Water Bacteriology – sterile plastic bottle

Preservative and Handling: 10 mg $Na_2S_2O_3$, refrigerate or store on ice and do not allow to freeze, **recommend same day receipt at lab,** total holding time 30 hours, except for Surface Water samples 8 hours

Method Technology: Pour Plate Agar

ENVIRONMENTAL MICROBIOLOGY

Name: ***Cryptosporidium* and *Giardia***

Test Code: **1623-Protozoa**

Grouping: **Water Treatment Technique**

Application: Surface Water Treatment Rule (LT2)

Analytes: *Cryptosporidium* (oocysts)
Giardia (cysts)

NOTE: **Prior to collection of 1623-Protozoa samples, analysis must be scheduled at 801-883-4655, due to complex nature of testing procedures**

Instructions for Collection: Allow source to flow for a few minutes until water temperature stabilizes. For bulk water samples, slowly fill to top of container. For field filtration, pressurized flow is necessary to pass the required 10 L (2.6 gal) volume through the capsule filter (a pump may be needed for stream flow analysis or where pressurized flow is not available). Also, make sure to record sample volume filtered on test request form.

Required Containers/Volume: 1 μm pore size Pall *Envirochek HV* – capsule filter
20 L Carboy – plastic bottle (6-1 gal plastic jugs also applicable)

Preservative and Handling: Refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** holding times, 96 hours to elution, 72 hours to staining, and 7 days to complete microscopy analysis

For regulatory analysis, samples must arrive at laboratory at less than 10 °C or arrive the same day as collected

Method Technologies: Filtration, Elution, Centrifugation, Immunomagnetic Separation, Fluorescent-conjugated Antibody Staining, and Advanced Microscopy with Differential Interference Contrast

ENVIRONMENTAL MICROBIOLOGY

Name: ***Legionella***

Test Code: **9260J-Legionella**

Applications: Drinking Water (Hot Water Tanks)
Air Handling (Swamp Coolers, Evaporators, etc.)

Analyte: *Legionella*

NOTE: **Prior to collection of 9260J-Legionella samples, analysis must be scheduled at 801-883-4655, due to complex nature of testing procedures (batch analysis performed on third Thursday of each month)**

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 Legionella – unpreserved plastic bottle

Preservative and Handling: **Same day receipt at lab,** no holding time

Method Technology: Filtration, Elution, MWY Agar, and Latex-Agglutination

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Name: ***Enterococcus***

Test Code: **Type 9-ECOCCI** **Note: *Enterococcus* tested with Total/Fecal Coliforms for Surface Water analysis**

Required Containers/Volume: 120 mL Water Bacteriology – sterile plastic bottle (see page 32)

Method Technology: Enzyme Substrate

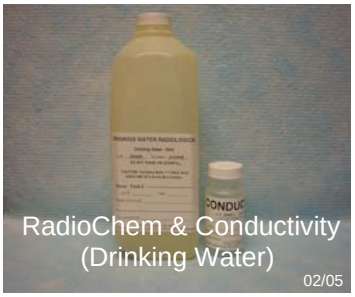
RADIOLOGIC CHEMISTRY

Name: **Gross-Alpha , Radium-228 , Uranium [U]**

Test Codes: **900.0-ALPG , 904.0-228R , 200.8-UUMS* , 200.8-UFMS***

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



Grouping: **Radiologic Testing**

Applications: Drinking Water
Surface Water

Analytes: Gross-Alpha
Radium-228
Uranium (UUMS-Unfiltered)
Uranium (UFMS-Filtered)
Conductivity

NOTE: **Uranium also listed under Inorganic Testing** **(see page 30)**

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. Do not pour from RadioChem bottle to Conductivity bottle, must fill Conductivity separately.

Required Containers/Volume:

Drinking Water
2 L RadioChem – plastic bottle
*250 mL Total Metals – plastic bottle (also applicable for Uranium)
120 mL Conductivity – plastic bottle

Surface Water
2-2 L RadioChem – plastic bottles
*250 mL Total Metals – plastic bottle (also applicable for Uranium)
120 mL Conductivity – plastic bottle

Preservative and Handling: HNO_3 to pH <2, **recommend next day receipt at lab,** total holding time 180 days

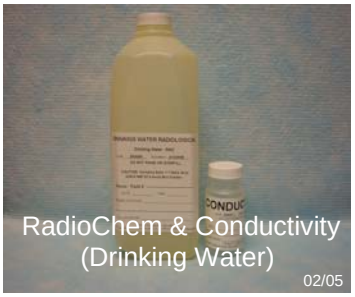
Methods Technologies: Evaporation, Co-Precipitation, and Gas-Flow Proportional Counter

Uranium detected by ICPMS

RADIOLOGIC CHEMISTRY

Name: **Gross-Beta , Radium-226**

Test Codes: **900.0-BETG , 903.1-226R**



Grouping: **Radiologic Testing**

Applications: Drinking Water
Surface Water

Analytes: Gross-Beta
Radium-226
Conductivity

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. Do not pour from RadioChem bottle to Conductivity bottle, must fill Conductivity separately.

Required Containers/Volume:

Drinking Water
2 L RadioChem – plastic bottle
120 mL Conductivity – plastic bottle

Surface Water
2-2 L RadioChem – plastic bottles
120 mL Conductivity – plastic bottle

Preservative and Handling: HNO_3 to pH <2, refrigerate or store on ice and do not allow to freeze, **recommend next day receipt at lab,** total holding time 180 days

Methods Technologies: Evaporation, Co-Precipitation, Emanation, and Gas-Flow Proportional Counter

Name: **Geosmin and MIB**

Test Code: **525.2-ODOR**

Applications: Drinking Water

Analytes: Geosmin
2-Methylisoborneol (MIB)

NOTE: **Prior to collection of 525.2-ODOR samples, analysis must be scheduled at 801 584-8400, due to complex nature of testing procedures (batch analysis is preferred)**

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 525.2 Odor – amber glass bottle

Preservative and Handling: **Same day receipt at lab,** no holding time

Method Technology: Liquid-solid extraction followed by GCMS detection

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Name: **Lead (air samples)**

Test Code: **200.8-T-Pb**

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

Required Containers/Volume:

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

Required Containers/Volume: Air monitoring staff.

Preservative and Handling: Store filtered samples in plastic bag

Method Technology: Filter digestion followed by ICPMS detection

PROGRAM SPECIFIC INDEXES

Clean Water Act (CWA)

Analyte	Test Code	UPHL Unit	Page Number
Alkalinity	**2320B- ALK**	Inorganic Chemistry	**26, 30**
Aluminum	**200.8-AL**	Inorganic Chemistry-Metals	**17**
Ammonia	**350.3- NH3**	Inorganic Chemistry-Nutrients	**18,20**
Antimony	**200.8- SB**	Inorganic Chemistry-Metals	**17**
Arsenic	**200.8- AS**	Inorganic Chemistry-Metals	**16,17**
Barium	**200.8- BA**	Inorganic Chemistry-Metals	**17**
Beryllium	**200.8BE**	Inorganic Chemistry-Metals	**17**
BOD	**405.1-BOD**	Inorganic Chemistry	**27**
Boron	**200.7-B**	Inorganic Chemistry-Metals	**17**
Cadmium	**200.8-CD**	Inorganic Chemistry-Metals	**17**
Calcium	**200.7-CA**	Inorganic Chemistry-Metals	**17**
CBOD	**CBOD**	Inorganic Chemistry	**27**
Chloride	**352.2-CL** **300.1**	Inorganic Chemistry Inorganic Chemistry	**23, 30** **23, 30**
Chlorophyll-A	**10200H-CH-A**	Inorganic Chemistry	**28**
Chromium	**200.8-CR**	Inorganic Chemistry-Metals	**17**
Cobalt	**200.8-CO**	Inorganic Chemistry-Metals	**17**
COD	**410.4-COD**	Inorganic Chemistry	**28**
Conductivity	**120.1-COND**	Inorganic Chemistry	**21, 30**
Copper	**200.8-CU**	Inorganic Chemistry-Metals	**17**
Cyanide	**335.4-CNCL**	Inorganic Chemistry	**24, 30**
Dissolved Total Nitrogen	**4500 N – D-TN**	Inorganic Chemistry	**20**
E. coli	**9223B-Colilert**	Environmental Microbiology	**33**
Enterococcus	**Enterolert**	Environmental Microbiology	**35**

PROGRAM SPECIFIC INDEXES

Clean Water Act (CWA)

Analyte	Test Code	UPHL Unit	Page Number
Fecal Coliform	**9222D-mFC**	Environmental Microbiology	**33**
Fluoride	**4500C-F**	Inorganic Chemistry	**25, 30**
Fluoride	**300.0**	Certification Pending	**25**
Hardness	**HARD**	Inorganic Chemistry	**22, 30**
Heterotrophic Plate Count	**9215B-HPC**	Environmental Microbiology	**33**
Iron	**200.7-FE**	Inorganic Chemistry-Metals	**17**
Lead	**200.8-PB**	Inorganic Chemistry-Metals	**17**
Magnesium	**200.7-MG**	Inorganic Chemistry-Metals	**17**
Manganese	**200.8-MN**	Inorganic Chemistry-Metals	**17**
Mercury	**245.1-HG**	Inorganic Chemistry-Metals	**16, 17**
Mercury	**200.8-HG**	Inorganic Chemistry-Metals	**16, 17**
Molybdenum	**200.8-MO**	Inorganic Chemistry-Metals	**17**
Nickel	**200.8-NI**	Inorganic Chemistry-Metals	**17**
Nitrate+Nitrite	**353.2-NO2+NO3**	Inorganic Chemistry-Nutrients	**19, 20**
Nitrite (only)	**353.2-NO2**	Inorganic Chemistry-Nutrients	**19, 20**
Oil and Grease	**5520-O/G**	Organic Chemistry	**11**
Phosphate	**365.1-TPO4**	Inorganic Chemistry-Nutrients	**18, 20**
pH	**150.1-PH**	Inorganic Chemistry	**21, 30**
Potassium	**200.7-K**	Inorganic Chemistry-Metals	**17**
Selenium	**200.8-SE**	Inorganic Chemistry-Metals	**17**
Silica	**370.1-SIO2**	Inorganic Chemistry	**29**
Silver	**200.8-AG**	Inorganic Chemistry-Metals	**17**

PROGRAM SPECIFIC INDEXES

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

Analyte	Test Code	UPHL Unit	Page Number
Sodium	**200.7-NA**	Inorganic Chemistry-Metals	**17**
Sulfate	**375.2-SO4**	Inorganic Chemistry	**19, 30**
Sulfide (Omit ???)	**376.2-SULI**	Inorganic Chemistry	**25**
Thallium	**200.8-TL**	Inorganic Chemistry-Metals	**31**
TOC	**5310B-TOC**	Inorganic Chemistry	**26**
Total Coliform	**9223B-Colilert**	Environmental Microbiology	**33**
Total Coliform	**9222B-mENDO**	Environmental Microbiology	**33**
Total Dissolved Solids (TDS)	**160.1-TDS**	Inorganic Chemistry	**29, 30**
Total Suspended Solids (TSS)	**160.2-TSS**	Inorganic Chemistry	**29, 30**
Turbidity	**180.1-TURB**	Inorganic Chemistry	**27, 30**
Uranium	**200.8-UUMS**	Inorganic Chemistry-Metals	**31, 36**
UV254	**5910B-UV254**	Inorganic Chemistry	**26**
Vanadium	**200.8-V**	Inorganic Chemistry-Metals	**17**
Zinc	**200.8-ZN**	Inorganic Chemistry-Metals	**17**
4,4'-DDD	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
4,4'-DDE	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
4,4'-DDT	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Aldrin	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
alpha-BHC	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
beta-BHC	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Chlordane	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
delta-BHC	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Dieldrin	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Endosulfan I	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**

PROGRAM SPECIFIC INDEXES

Analyte	Test Code	UPHL Unit	Page Number
Endosulfan II	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Endosulfan sulfate	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Endrin	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Endrin aldehyde	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
gamma-BHC (Lindane)	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Heptachlor	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Heptachlor epoxide	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Methoxychlor	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1016	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1221	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1232	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1242	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1248	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1254	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
PCB-1260	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
Toxaphene	**608-PCB/OcPest**	Organic Chemistry-PCB/OcPest	**11**
1,1-Dichloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
1,1-Dichloroethene	**624-VOC**	Organic Chemistry-VOC	**6**
1,1-Dichloropropene	**624-VOC**	Organic Chemistry-VOC	**6**
1,1,1-Trichloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
1,1,1,2-Tetrachloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
1,1,2-Trichloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	**624-VOC**	Organic Chemistry-VOC	**6**
1,1,2,2-Tetrachloroethane	**624-VOC**	Organic Chemistry-VOC	**6**

PROGRAM SPECIFIC INDEXES

Analyte	Test Code	UPHL Unit	Page Number
1,2-Dibromo-3-chloropropane	**624-VOC**	Organic Chemistry-VOC	**6**
1,2-Dichlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,2-Dichloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
1,2-Dichloropropane	**624-VOC**	Organic Chemistry-VOC	**6**
1,2-Dichlorotoluene	**624-VOC**	Organic Chemistry-VOC	**6**
1,2,3-Trichlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,2,3-Trichloropropane	**624-VOC**	Organic Chemistry-VOC	**6**
1,2,4-Trichlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,2,4-Trimethylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,3-Dichlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,3-Dichloropropane	**624-VOC**	Organic Chemistry-VOC	**6**
1,3,5-Trimethylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,4-Dichlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
1,4-Dichlorotoluene	**624-VOC**	Organic Chemistry-VOC	**6**
1,4-Isopropyltoluene	**624-VOC**	Organic Chemistry-VOC	**6**
2,2-Dichloropropane	**624-VOC**	Organic Chemistry-VOC	**6**
Benzene	**624-VOC**	Organic Chemistry-VOC	**6**
Bromobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Bromochloromethane	**624-VOC**	Organic Chemistry-VOC	**6**
Bromodichloromethane	**624-VOC**	Organic Chemistry-VOC	**6**
Bromoform	**624-VOC**	Organic Chemistry-VOC	**6**
Bromomethane	**624-VOC**	Organic Chemistry-VOC	**6**
Carbon tetrachloride	**624-VOC**	Organic Chemistry-VOC	**6**
Chlorobenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Chlorodibromomethane	**624-VOC**	Organic Chemistry-VOC	**6**

PROGRAM SPECIFIC INDEXES

Analyte	Test Code	UPHL Unit	Page Number
Chloroethane	**624-VOC**	Organic Chemistry-VOC	**6**
Chloroform	**624-VOC**	Organic Chemistry-VOC	**6**
Chloromethane	**624-VOC**	Organic Chemistry-VOC	**6**
cis-1,2-Dichloroethene	**624-VOC**	Organic Chemistry-VOC	**6**
cis-1,3-Dichloropropene	**624-VOC**	Organic Chemistry-VOC	**6**
Dibromomethane	**624-VOC**	Organic Chemistry-VOC	**6**
Dichlorodifluoromethane	**624-VOC**	Organic Chemistry-VOC	**6**
Ethylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Ethylene dibromide	**624-VOC**	Organic Chemistry-VOC	**6**
Hexachlorobutadiene	**624-VOC**	Organic Chemistry-VOC	**6**
Isopropylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Methylene chloride	**624-VOC**	Organic Chemistry-VOC	**6**
MTBE	**624-VOC**	Organic Chemistry-VOC	**6**
Napthalene	**624-VOC**	Organic Chemistry-VOC	**6**
n-Butylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
n-Propylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
sec-Butylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Styrene	**624-VOC**	Organic Chemistry-VOC	**6**
tert-Butylbenzene	**624-VOC**	Organic Chemistry-VOC	**6**
Tetrachloroethene (PCE)	**624-VOC**	Organic Chemistry-VOC	**6**
Toluene	**624-VOC**	Organic Chemistry-VOC	**6**
trans-1,2-Dichloroethene	**624-VOC**	Organic Chemistry-VOC	**6**
trans-1,3-Dichloropropene	**624-VOC**	Organic Chemistry-VOC	**6**
Trichloroethene (TCE)	**624-VOC**	Organic Chemistry-VOC	**6**
Trichlorofluoromethane	**624-VOC**	Organic Chemistry-VOC	**6**

PROGRAM SPECIFIC INDEXES

Analyte	Test Code	UPHL Unit	Page Number
Vinyl chloride	**624-VOC**	Organic Chemistry-VOC	**6**
Xylene	**624-VOC**	Organic Chemistry-VOC	**6**
1,2-Dichlorobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
1,2,4-Trichlorobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
1,3-Dichlorobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
1,4-Dichlorobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Chloronaphthalene	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Chlorophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Methyl naphthalene	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Methyl phenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Methyl-4,6-dinitrophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Nitroaniline	**625-SVOC**	Organic Chemistry-SVOC	**7**
2-Nitrophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,4-Dichlorophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,4-Dimethylphenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,4-Dinitrophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,4-Dinitrotoluene	**625-SVOC**	Organic Chemistry-SVOC	**7**
2, 4, 5-Trichlorophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,4,6-Trichlorophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
2,6-Dinitrotoluene	**625-SVOC**	Organic Chemistry-SVOC	**7**
3-Methyl phenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
3-Nitroaniline	**625-SVOC**	Organic Chemistry-SVOC	**7**
3,3'-Dichlorobenzidine	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Bromophenyl phenyl ether	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Chloroaniline	**625-SVOC**	Organic Chemistry-SVOC	**7**

PROGRAM SPECIFIC INDEXES

Clean Water Act (CWA) – 625-SVOC

Analyte	Test Code	UPHL Unit	Page Number
4-Chlorophenyl phenyl ether	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Chloro-3-methyl phenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Methyl phenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Nitroaniline	**625-SVOC**	Organic Chemistry-SVOC	**7**
4-Nitrophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
Acenaphthene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Acenaphthylene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Aniline	**625-SVOC**	Organic Chemistry-SVOC	**7**
Anthracene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzidine	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzo (a) anthracene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzo (a) pyrene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzo (b) fluoranthene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzo (g,h,i) perylene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzo (k) fluoranthene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzylbutylphthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzyl alcohol	**625-SVOC**	Organic Chemistry-SVOC	**7**
Benzoic acid	**625-SVOC**	Organic Chemistry-SVOC	**7**
bis (2-chloroethyl) ether	**625-SVOC**	Organic Chemistry-SVOC	**7**
bis (2-chloroethoxy) methane	**625-SVOC**	Organic Chemistry-SVOC	**7**
bis (2-chloroisopropyl) ether	**625-SVOC**	Organic Chemistry-SVOC	**7**
bis (2-ethylhexyl) phthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Chrysene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Dibenzo (a,h) anthracene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Dibenzofuran	**625-SVOC**	Organic Chemistry-SVOC	**7**

PROGRAM SPECIFIC INDEXES

Clean Water Act (CWA) – 625-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Diethyl phthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Dimethyl phthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Di-n-butyl phthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Di-n-octyl phthalate	**625-SVOC**	Organic Chemistry-SVOC	**7**
Fluoranthene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Fluorene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Hexachlorobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Hexachlorobutadiene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Hexachlorocyclopentadiene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Hexachloroethane	**625-SVOC**	Organic Chemistry-SVOC	**7**
Ideno (1,2,3-cd) pyrene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Isophorone	**625-SVOC**	Organic Chemistry-SVOC	**7**
n-Nitrosodimethylamine	**625-SVOC**	Organic Chemistry-SVOC	**7**
n-Nitrosodiphenylamine	**625-SVOC**	Organic Chemistry-SVOC	**7**
n-Nitrosodipropylamine	**625-SVOC**	Organic Chemistry-SVOC	**7**
Naphthalene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Nitrobenzene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Pentachlorophenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
Phenanthrene	**625-SVOC**	Organic Chemistry-SVOC	**7**
Phenol	**625-SVOC**	Organic Chemistry-SVOC	**7**
Pyrene	**625-SVOC**	Organic Chemistry-SVOC	**7**

PROGRAM SPECIFIC INDEXES

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

Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
4,4'-DDD	**8081-PCB/OcPest**	U060	Organic Chemistry-PCB/OcPest	**11**
4,4'-DDE	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
4,4'-DDT	**8081-PCB/OcPest**	U061	Organic Chemistry-PCB/OcPest	**11**
Aldrin	**8081-PCB/OcPest**	P005	Organic Chemistry-PCB/OcPest	**11**
alpha-BHC	**8081-PCB/OcPest**	U129	Organic Chemistry-PCB/OcPest	**11**
beta-BHC	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
Chlordane	**8081-PCB/OcPest**	D020	Organic Chemistry-PCB/OcPest	**11, 13**
delta-BHC	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
Dieldrin	**8081-PCB/OcPest**	P037	Organic Chemistry-PCB/OcPest	**11**
Endosulfan I	**8081-PCB/OcPest**	P050	Organic Chemistry-PCB/OcPest	**11**
Endosulfan II	**8081-PCB/OcPest**	P050	Organic Chemistry-PCB/OcPest	**11**
Endosulfan sulfate	**8081-PCB/OcPest**	P050	Organic Chemistry-PCB/OcPest	**11**
Endrin	**8081-PCB/OcPest**	D012	Organic Chemistry-PCB/OcPest	**11, 13**
Endrin aldehyde	**8081-PCB/OcPest**	D012	Organic Chemistry-PCB/OcPest	**11**
gamma-BHC (Lindane)	**8081-PCB/OcPest**	D013	Organic Chemistry-PCB/OcPest	**11, 13**
Heptachlor	**8081-PCB/OcPest**	D031	Organic Chemistry-PCB/OcPest	**11, 13**
Heptachlor epoxide	**8081-PCB/OcPest**	D031	Organic Chemistry-PCB/OcPest	**11, 13**
Methoxychlor	**8081-PCB/OcPest**	D014	Organic Chemistry-PCB/OcPest	**11, 13**
PCB-1016	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1221	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1232	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1242	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1248	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1254	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
PCB-1260	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**

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Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
Toxaphene	**8081-PCB/OcPest**	D015	Organic Chemistry-PCB/OcPest	**11, 13**
*Add-ons	**8081-PCB/OcPest**		Organic Chemistry-PCB/OcPest	**11**
2,4-D	**8151-Herbicides**	D016	Organic Chemistry-Herbicides	**8, 13**
2,4,5-TP (Silvex)	**8151-Herbicides**	D017	Organic Chemistry-Herbicides	**8, 13**
Dalapon	**8151-Herbicides**		Organic Chemistry-Herbicides	**8**
Dinoseb	**8151-Herbicides**	P020	Organic Chemistry-Herbicides	**8**
Pentachlorophenol	**8151-Herbicides**	D037	Organic Chemistry-Herbicides	**8, 13**
Picloram	**8151-Herbicides**		Organic Chemistry-Herbicides	**8**
*Add-ons	**8151-Herbicides**		Organic Chemistry-Herbicides	**8**
1,1-Dichloroethane	**8260-VOC**		Organic Chemistry-VOC	**6**
1,1-Dichloroethene	**8260-VOC**	D029	Organic Chemistry-VOC	**6, 13**
1,1-Dichloropropene	**8260-VOC**		Organic Chemistry-VOC	**6**
1,1,1-Trichloroethane	**8260-VOC**		Organic Chemistry-VOC	**6**
1,1,1,2-Tetrachloroethane	**8260-VOC**	U208	Organic Chemistry-VOC	**6**
1,1,2-Trichloroethane	**8260-VOC**	U227	Organic Chemistry-VOC	**6**
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	**8260-VOC**		Organic Chemistry-VOC	**6**
1,1,2,2-Tetrachloroethane	**8260-VOC**	U209	Organic Chemistry-VOC	**6**
1,2-Dibromo-3-chloropropan	e**8260-VOC**	U066	Organic Chemistry-VOC	**6**
1,2-Dichlorobenzene	**8260-VOC**	U070	Organic Chemistry-VOC	**6**
1,2-Dichloroethane	**8260-VOC**	D028	Organic Chemistry-VOC	**6, 13**
1,2-Dichloropropane	**8260-VOC**	U083	Organic Chemistry-VOC	**6**
1,2-Dichlorotoluene	**8260-VOC**		Organic Chemistry-VOC	**6**
1,2,3-Trichlorobenzene	**8260-VOC**		Organic Chemistry-VOC	**6**

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Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
1,2,3-Trichloropropane	**8260-VOC**		Organic Chemistry-VOC	**6**
1,2,4-Trichlorobenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
1,2,4-Trimethylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
1,3-Dichlorobenzene	**8260-VOC**	U071	Organic Chemistry-VOC	**6**
1,3-Dichloropropane	**8260-VOC**	U084	Organic Chemistry-VOC	**6**
1,3,5-Trimethylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
1,4-Dichlorobenzene	**8260-VOC**	D027	Organic Chemistry-VOC	**6, 13**
1,4-Dichlorotoluene	**8260-VOC**	U072	Organic Chemistry-VOC	**6**
1,4-Isopropyltoluene	**8260-VOC**		Organic Chemistry-VOC	**6**
2,2-Dichloropropane	**8260-VOC**		Organic Chemistry-VOC	**6**
Benzene	**8260-VOC**	D018	Organic Chemistry-VOC	**6, 13**
Bromobenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
Bromochloromethane	**8260-VOC**		Organic Chemistry-VOC	**6**
Bromodichloromethane	**8260-VOC**		Organic Chemistry-VOC	**6**
Bromoform	**8260-VOC**	U225	Organic Chemistry-VOC	**6**
Bromomethane	**8260-VOC**	U029	Organic Chemistry-VOC	**6**
Carbon tetrachloride	**8260-VOC**	D019	Organic Chemistry-VOC	**6, 13**
Chlorobenzene	**8260-VOC**	D021	Organic Chemistry-VOC	**6, 13**
Chlorodibromomethane	**8260-VOC**		Organic Chemistry-VOC	**6**
Chloroethane	**8260-VOC**	U045	Organic Chemistry-VOC	**6**
Chloroform	**8260-VOC**	D022	Organic Chemistry-VOC	**6, 13**
Chloromethane	**8260-VOC**	U045	Organic Chemistry-VOC	**6**
cis-1,2-Dichloroethene	**8260-VOC**		Organic Chemistry-VOC	**6**
cis-1,3-Dichloropropene	**8260-VOC**		Organic Chemistry-VOC	**6**

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Resource Conservation and Recovery Act (RCRA) – 8260-VOC

Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
Dibromomethane	**8260-VOC**	U068	Organic Chemistry-VOC	**6**
Dichlorodifluoromethane	**8260-VOC**	U075	Organic Chemistry-VOC	**6**
Ethylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
Ethylene dibromide	**8260-VOC**	U067	Organic Chemistry-VOC	**6**
Hexachlorobutadiene	**8260-VOC**	D033	Organic Chemistry-VOC	**6, 13**
Isopropylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
Methyl ethyl ketone*	**8260-VOC**	D035	Organic Chemistry-VOC	**6, 13**
Methylene chloride	**8260-VOC**	U080	Organic Chemistry-VOC	**6**
MTBE	**8260-VOC**		Organic Chemistry-VOC	**6**
Napthalene	**8260-VOC**		Organic Chemistry-VOC	**6**
n-Butylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
n-Propylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
sec-Butylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
Styrene	**8260-VOC**		Organic Chemistry-VOC	**6**
tert-Butylbenzene	**8260-VOC**		Organic Chemistry-VOC	**6**
Tetrachloroethene (PCE)	**8260-VOC**	D039	Organic Chemistry-VOC	**6, 13**
Toluene	**8260-VOC**	U220	Organic Chemistry-VOC	**6**
trans-1,2-Dichloroethene	**8260-VOC**	U079	Organic Chemistry-VOC	**6**
trans-1,3-Dichloropropene	**8260-VOC**	U084	Organic Chemistry-VOC	**6**
Trichloroethene (TCE)	**8260-VOC**	D040	Organic Chemistry-VOC	**6, 13**
Trichlorofluoromethane	**8260-VOC**	U121	Organic Chemistry-VOC	**6**
Vinyl chloride	**8260-VOC**	D043	Organic Chemistry-VOC	**6, 13**
Xylene	**8260-VOC**	U239	Organic Chemistry-VOC	**6**
*Add-ons	**8260-VOC**		Organic Chemistry-VOC	**6**

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Resource Conservation and Recovery Act (RCRA) – 8270-SVOC

Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
1,2-Dichlorobenzene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
1,2,4-Trichlorobenzene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
1,3-Dichlorobenzene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
1,4-Dichlorobenzene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
2-Chloronaphthalene	**8270-SVOC**	U047	Organic Chemistry-SVOC	**7**
2-Chlorophenol	**8270-SVOC**	U048	Organic Chemistry-SVOC	**7**
2-Methyl naphthalene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
2-Methyl phenol (o-Cresol)	**8270-SVOC**	D023	Organic Chemistry-SVOC	**7, 13**
2-Methyl-4,6-dinitrophenol	**8270-SVOC**		Organic Chemistry-SVOC	**7**
2-Nitroaniline	**8270-SVOC**		Organic Chemistry-SVOC	**7**
2-Nitrophenol	**8270-SVOC**		Organic Chemistry-SVOC	**7**
2,4-Dichlorophenol	**8270-SVOC**	U081	Organic Chemistry-SVOC	**7**
2,4-Dimethylphenol	**8270-SVOC**	U101	Organic Chemistry-SVOC	**7**
2,4-Dinitrophenol	**8270-SVOC**	P048	Organic Chemistry-SVOC	**7**
2,4-Dinitrotoluene	**8270-SVOC**	D030	Organic Chemistry-SVOC	**7, 13**
2,4,5-Trichlorophenol	**8270-SVOC**	D041	Organic Chemistry-SVOC	**7, 13**
2,4,6-Trichlorophenol	**8270-SVOC**	D042	Organic Chemistry-SVOC	**7, 13**
2,6-Dinitrotoluene	**8270-SVOC**	U106	Organic Chemistry-SVOC	**7**
3-Methyl phenol (m-Cresol)	**8270-SVOC**	D024	Organic Chemistry-SVOC	**7, 13**
3-Nitroaniline	**8270-SVOC**		Organic Chemistry-SVOC	**7**
3,3'-Dichlorobenzidine	**8270-SVOC**	U073	Organic Chemistry-SVOC	**7**
4-Bromophenyl phenyl ether	**8270-SVOC**	U030	Organic Chemistry-SVOC	**7**
4-Chloroaniline	**8270-SVOC**	P024	Organic Chemistry-SVOC	**7**
4-Chlorophenyl phenyl ether	**8270-SVOC**		Organic Chemistry-SVOC	**7**
4-Chloro-3-methyl phenol	**8270-SVOC**	U039	Organic Chemistry-SVOC	**7**

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Resource Conservation and Recovery Act (RCRA) – 8270-SVOC

Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
4-Methyl phenol (p-Cresol)	**8270-SVOC**	D025	Organic Chemistry-SVOC	**7, 13**
4-Nitroaniline	**8270-SVOC**	P077	Organic Chemistry-SVOC	**7**
4-Nitrophenol	**8270-SVOC**	U170	Organic Chemistry-SVOC	**7**
Acenaphthene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Acenaphthylene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Aniline	**8270-SVOC**	U012	Organic Chemistry-SVOC	**7**
Anthracene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzidine	**8270-SVOC**	U021	Organic Chemistry-SVOC	**7**
Benzo (a) anthracene	**8270-SVOC**	U018	Organic Chemistry-SVOC	**7**
Benzo (a) pyrene	**8270-SVOC**	U022	Organic Chemistry-SVOC	**7**
Benzo (b) fluoranthene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzo (g,h,i) perylene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzo (k) fluoranthene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzylbutylphthalate	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzyl alcohol	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Benzoic acid	**8270-SVOC**		Organic Chemistry-SVOC	**7**
bis (2-chloroethyl) ether	**8270-SVOC**	U025	Organic Chemistry-SVOC	**7**
bis (2-chloroethoxy) methane	**8270-SVOC**	U046	Organic Chemistry-SVOC	**7**
bis (2-chloroisopropyl) ether	**8270-SVOC**	U027	Organic Chemistry-SVOC	**7**
bis (2-ethylhexyl) phthalate	**8270-SVOC**	U028	Organic Chemistry-SVOC	**7**
Chrysene	**8270-SVOC**	U050	Organic Chemistry-SVOC	**7**
Dibenzo (a,h) anthracene	**8270-SVOC**	U063	Organic Chemistry-SVOC	**7**
Dibenzofuran	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Diethyl phthalate	**8270-SVOC**	U088	Organic Chemistry-SVOC	**7**
Dimethyl phthalate	**8270-SVOC**	U102	Organic Chemistry-SVOC	**7**

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Resource Conservation and Recovery Act (RCRA) – 8270-SVOC

Analyte	Test Code	EPA HW No.	UPHL Unit	Page Number
Di-n-butyl phthalate	**8270-SVOC**	U069	Organic Chemistry-SVOC	**7**
Di-n-octyl phthalate	**8270-SVOC**	U107	Organic Chemistry-SVOC	**7**
Fluoranthene	**8270-SVOC**	U120	Organic Chemistry-SVOC	**7**
Fluorene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Hexachlorobenzene	**8270-SVOC**	D032	Organic Chemistry-SVOC	**7, 13**
Hexachlorobutadiene	**8270-SVOC**	D033	Organic Chemistry-SVOC	**7, 13**
Hexachlorocyclopentadiene	**8270-SVOC**	U130	Organic Chemistry-SVOC	**7**
Hexachloroethane	**8270-SVOC**	D034	Organic Chemistry-SVOC	**7, 13**
Ideno (1,2,3-cd) pyrene	**8270-SVOC**	U137	Organic Chemistry-SVOC	**7**
Isophorone	**8270-SVOC**		Organic Chemistry-SVOC	**7**
n-Nitrosodimethylamine	**8270-SVOC**	P082	Organic Chemistry-SVOC	**7**
n-Nitrosodiphenylamine	**8270-SVOC**		Organic Chemistry-SVOC	**7**
n-Nitrosodipropylamine	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Naphthalene	**8270-SVOC**	U165	Organic Chemistry-SVOC	**7**
Nitrobenzene	**8270-SVOC**	D036	Organic Chemistry-SVOC	**7, 13**
Pentachlorophenol	**8270-SVOC**	D037	Organic Chemistry-SVOC	**7, 13**
Phenanthrene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
Phenol	**8270-SVOC**	U188	Organic Chemistry-SVOC	**7**
Pyrene	**8270-SVOC**		Organic Chemistry-SVOC	**7**
*Pyridine	**8270-SVOC**	D038	Organic Chemistry-SVOC	**7, 13**
*Add-ons	**8270-SVOC**		Organic Chemistry-SVOC	**7**

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Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
2,4-D	**515.1**	Organic Chemistry-Herbicides	**8, 9**
2,4,5-TP (Silvex)	**515.1**	Organic Chemistry-Herbicides	**8, 9**
3-Hyrdroxycarbofuran	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Aldicarb (Temik)	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Aldicarb sulfone	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Aldicarb sulfoxide	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Alkalinity	**2320B-ALK**	Inorganic Chemistry	**26, 30**
Aluminum	**200.8-AL**	Inorganic Chemistry-Metals	**17**
Ammonia	**350.3-NH3**	Inorganic Chemistry-Nutrients	**18, 20**
Antimony	**200.8-SB**	Inorganic Chemistry-Metals	**17**
Arsenic	**200.8-AS**	Inorganic Chemistry-Metals	**16, 17**
Barium	**200.8-BA**	Inorganic Chemistry-Metals	**17**
Beryllium	**200.8-BE**	Inorganic Chemistry-Metals	**17**
Boron	**200.7-B**	Inorganic Chemistry-Metals	**17**
Bromate	**3001-BRO3**	Inorganic Chemistry	**23**
Bromide	**300.1BRIC**	Inorganic Chemistry	**23**
Bromodichloromethane	**524.2-THM**	Organic Chemistry-THM	**5**
Bromoform	**524.2-THM**	Organic Chemistry-THM	**5**
Cadmium	**200.8-CD**	Inorganic Chemistry-Metals	**17**
Calcium	**200.7-CA**	Inorganic Chemistry-Metals	**17**
Carbaryl (Sevin)	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Carbofuran (Furadan)	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Chlorate	**300. 1 -CLO3**	Inorganic Chemistry	**23**
Chloride	**325.2-CL**	Inorganic Chemistry	**23, 30**

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Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
Chloride	**300.0-CLIC**	Inorganic Chemistry	**23, 30**
Chlorite	**300. 1 -CLO2**	Inorganic Chemistry	**23**
Chlorodibromomethane	**524.2-THM**	Organic Chemistry-THM	**5**
Chloroform	**524.2-THM**	Organic Chemistry-THM	**5**
Chromium	**200.8-CR**	Inorganic Chemistry-Metals	**17**
Chromium-IV	**3500CD-CR6+**	Inorganic Chemistry	**31**
Cobalt	**200.8-CO**	Inorganic Chemistry-Metals	**17**
Color	**110.2-COLR**	Inorganic Chemistry	**14, 22**
Conductivity	**120.1-COND**	Inorganic Chemistry	**21, 30**
Copper	**200.8-CU**	Inorganic Chemistry-Metals	**17**
Corrosivity	**CORR**	Inorganic Chemistry	**14, 21**
Cryptosporidium	**1623**	Environmental Microbiology	**34**
Cyanide	**335.4-CNCL**	Inorganic Chemistry	**24**
Dalapon	**515.1**	Organic Chemistry-Herbicides	**8, 9**
Dibromoacetic acid	**6251B-HAA**	Organic Chemistry-HAA	**5**
Dichloroacetic acid	**6251B-HAA**	Organic Chemistry-HAA	**5**
Dinoseb	**515.1**	Organic Chemistry-Herbicides	**8, 9**
E. coli	**9223B-Colilert**	Environmental Microbiology	**33**
Enterococcus	**Enterolert**	Environmental Microbiology	**35**
Fecal Coliform	**9221E-EC**	Environmental Microbiology	**33**
Fluoride	**4500C-F (May omit ?)**	Inorganic Chemistry	**25, 30**
Fluoride	**300.0**	Inorganic Chemistry	**25, 30**
Giardia	**1623**	Environmental Microbiology	**34**

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Analyte	Test Code	UPHL Unit	Page Number
Hardness	**HARD**	Inorganic Chemistry	**22, 30**
Heterotrophic Plate Count	**9215B-HPC**	Environmental Microbiology	**33**
Iron	**200.7-FE**	Inorganic Chemistry-Metals	**17**
Lead	**200.8-PB**	Inorganic Chemistry-Metals	**17**
Legionella	**9260J**	Environmental Microbiology	**35**
Magnesium	**200.7-MG**	Inorganic Chemistry-Metals	**17**
Manganese	**200.8-MN**	Inorganic Chemistry-Metals	**17**
Mercury	**245.1-HG**	Inorganic Chemistry-Metals	**16, 17**
Methomyl	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Molybdenum	**200.8-MO**	Inorganic Chemistry-Metals	**17**
Monobromoacetic acid	**6215B-HAA**	Organic Chemistry-HAA	**5**
Monochloroacetic acid	**6215B-HAA**	Organic Chemistry-HAA	**5**
Nickel	**200.8-NI**	Inorganic Chemistry-Metals	**17**
Nitrate+Nitrite	**353.2-NO2+NO3**	Inorganic Chemistry-Nutrients	**19, 20**
Nitrite (only)	**353.2-NO2**	Inorganic Chemistry-Nutrients	**19, 20**
Odor	**140.1-ODOR**	Inorganic Chemistry	**14, 22**
Oxamyl (Vydate)	**531.1**	Organic Chemistry-Carbamates	**8, 9**
Pentachlorophenol	**515.1**	Organic Chemistry-Herbicides	**8, 9**
Perchlorate	**314.0-CLO4** **314.1 – CLO4**	Inorganic Chemistry	**24**
pH	**150.1-PH**	Inorganic Chemistry	**21, 30**
Phosphate	**365.1-TPO4**	Inorganic Chemistry-Nutrients	**18, 20**
Picloram	**515.1**	Organic Chemistry-Herbicides	**8, 9**
Potassium	**200.7-K**	Inorganic Chemistry-Metals	**17**

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Safe Drinking Water Act (SDWA)

Analyte	Test Code	UPHL Unit	Page Number
Selenium	**200.8-SE**	Inorganic Chemistry-Metals	**17**
Silica	**370.1-SIO2**	Inorganic Chemistry	**29**
Silver	**200.8-AG**	Inorganic Chemistry-Metals	**17**
Sodium	**200.7-NA**	Inorganic Chemistry-Metals	**17**
Sulfate	**300.0-SO4C**	Inorganic Chemistry	**19, 30**
Sulfide (OMIT ??)	**376.2-SULI**	Inorganic Chemistry	**26**
Thallium	**200.8-TL**	Inorganic Chemistry-Metals	**31**
TOC	**5310B-TOC**	Inorganic Chemistry	**26**
Total Coliform	**9223B-Colilert**	Environmental Microbiology	**33**
Total Coliform	**9222B-mENDO**	Environmental Microbiology	**33**
Total Dissolved Solids (TDS)	**160.1-TDS**	Inorganic Chemistry	**29, 30**
Total Suspended Solids (TSS)	**160.2-TSS**	Inorganic Chemistry	**29, 30**
Trichloroacetic acid	**6251B-HAA**	Organic Chemistry-HAA	**5**
Turbidity	**180.1-TURB**	Inorganic Chemistry	**27, 30**
Uranium	**200.8-UUMS**	Inorganic Chemistry-Metals	**31, 36**
UV254	**5910B-UV254**	Inorganic Chemistry	**26**
Vanadium	**200.8-V**	Inorganic Chemistry-Metals	**17**
Zinc	**200.8-ZN**	Inorganic Chemistry-Metals	**17**
1,1-Dichloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,1-Dichloroethene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,1-Dichloropropene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,1,1-Trichloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,1,2-Trichloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**

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Safe Drinking Water Act (SDWA) – 524.2-VOC

Analyte	Test Code	UPHL Unit	Page Number
1,1,1,2-Tetrachloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,1,2,2-Tetrachloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2-Dibromo-3-chloropropane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2-Dichlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2-Dichloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2-Dichloropropane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2-Dichlorotoluene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2,3-Trichlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2,3-Trichloropropane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2,4-Trichlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,2,4-Trimethylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,3-Dichlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,3-Dichloropropane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,3,5-Trimethylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,4-Dichlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,4-Dichlorotoluene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
1,4-Isopropyltoluene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
2,2-Dichloropropane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Benzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Bromobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Bromochloromethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Bromodichloromethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Bromoform	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Bromomethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Carbon tetrachloride	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**

PROGRAM SPECIFIC INDEXES

Safe Drinking Water Act (SDWA) – 524.2-VOC

Analyte	Test Code	UPHL Unit	Page Number
Chlorobenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Chlorodibromomethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Chloroethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Chloroform	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Chloromethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
cis-1,2-Dichloroethene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
cis-1,3-Dichloropropene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Dibromomethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Dichlorodifluoromethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Ethylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Ethylene dibromide	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Hexachlorobutadiene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Isopropylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Methylene chloride	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
MTBE	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Napthalene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
n-Butylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
n-Propylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
sec-Butylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Styrene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
tert-Butylbenzene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Tetrachloroethene (PCE)	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Toluene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
trans-1,2-Dichloroethene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
trans-1,3-Dichloropropene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**

PROGRAM SPECIFIC INDEXES

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

Analyte	Test Code	UPHL Unit	Page Number
Trichloroethene (TCE)	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Trichlorofluoromethane	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Vinyl chloride	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Xylene	**524.2-VOC**	Organic Chemistry-VOC	**6, 9**
Alachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Aldrin	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
alpha-Chlordane	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Atrazine	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
bis (2-ethylhexyl) adipate	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
bis (2-ethylhexyl) phthalate	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Benzo (a) pyrene	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Bromocil	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Butachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Chlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Cyanazine	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Dichlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Dieldrin	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Endrin	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
gamma-Chlordane	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**

PROGRAM SPECIFIC INDEXES

Safe Drinking Water Act (SDWA) – 525.2-SVOC

Analyte	Test Code	UPHL Unit	Page Number
Heptachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Heptachlor epoxide	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Heptachlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Hexachlorobenzene	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Hexachlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Hexachlorocyclopentadiene	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Lindane (gamma-BHC)	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Methoxychlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Metolachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Metribuzin	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Octachlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Pentachlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Pentachlorophenol	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Prometon	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Propachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Simazine	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Tetrachlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
trans-Nonachlor	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Trichlorobiphenyl	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Trifuralin	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**
Toxaphene	**525.2-SVOC**	Organic Chemistry-SVOC	**7, 9**

INSTRUCTIONS

USE OF 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 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 at 801-584-8400 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 referenced on page 64. Source and Type codes may be recorded in comments field. If you do not know which cost code or project code applies to your samples, please contact the laboratory.

USE OF 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
(must be initialed and dated at time of collection)

Identify Continuous Sample Possession
(signatures for dispatch, courier, relinquish, and so forth)
located at bottom of chain-of-custody form

Verify Laboratory Receipt
(obtain copy of form when signed by DLS staff at time of receipt)

INSTRUCTIONS

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
UDRC	Utah Division of Radiation Control	342
UDRC	Utah Division of Radiation Control (Mixed Waste)	343
UDSHW	Utah Division of Solid and Hazardous Waste	365
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	900B

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
8	8 hr Composite
9	24 hr Composite
15	6 hr Composite
21	Lake Surface
22	Lake
25	Lake Mid Depth
29	Lake Bottom
30	Sludge
40	Sediment
50	Soil
60	Air
70	Tissue
80	Clothing

Utah
Department of Health
Bureau of Chemical and Environmental Services

46 North Medical Drive, Salt Lake City, UT 84113-1105
Phone 801-584-8400 Fax 801-584-8251
URL http://health.utah.gov/lab/chemistry

☐ Hand delivered
☐ Shipped samples
☐ Cooler returned

System/Agency Name:	System/Agency Number:	Cost/Project Code:	Received Date and Time:

REPORTING/CONTACT

Attn: _____
Address: _____
City, State, ZIP: _____
Phone: _____
Fax: _____
Email: _____
Submitted by: _____

BILLING (list if different)

Special Code: _____
Attn: _____
Address: _____
City, State, ZIP: _____
Phone: _____
Fax: _____

Sample Receipt Conditions
COOLANT / NO COOLANT

	Yes	No
Documentation complete	☐	☐
Temperature within-range	☐	☐
Within holding time	☐	☐
Proper containers and in-date	☐	☐
Containers intact	☐	☐
Acceptable pH	☐	☐ N/A

COLLECTION POINT DESCRIPTION	COLLECTED BY (initials)	COLLECTED DATE (mm/dd/yy)	COLLECTED TIME (24 hour)	COMMENTS	Receipt temperature	Receipt pH	LAB NUMBER

REQUESTED TESTS (Check appropriate box and fill in additional information if required)

ORGANIC CHEMISTRY

- ☐ BTEX N
- ☐ Carbamates
- ☐ Ethylene/Propylene Glycols
- ☐ HAA
- ☐ Herbicides
- ☐ Oil and Grease
- ☐ Pesticides/SVOCs (circle: 525.2 , 625 or 8270)*
- ☐ Phase II / Phase V*
- ☐ PCB/OcPest (circle: 608 or 8081)*
- ☐ Surfactants
- ☐ TPH
- ☐ RCRA TCLP-Organics*
- ☐ THM
- ☐ VOCs (circle: 524.2 , 624* or 8260*)
- ☐ Geosmin and MIB (525.2-Odor)
- ☐ Other:_____
- ☐ Other:_____
- ☐ Other:_____

INORGANIC CHEMISTRY

- ☐ Alkalinity
- ☐ Ammonia
- ☐ Annual Inorganics and Metals (Type 9)
- ☐ BOD
- ☐ Bromate*
- ☐ Bromide*
- ☐ COD
- ☐ Chemistry (circle: Type 2 or Type 3)
- ☐ Chlorate*
- ☐ Chloride
- ☐ Chlorophyll-A (volume filtered:_____)
- ☐ Chromium-VI*
- ☐ Color
- ☐ Conductivity
- ☐ Corrosivity
- ☐ Cyanide
- ☐ Fluoride
- ☐ Hardness
- ☐ Lead and Copper (Type 8)
- ☐ New Drinking Water Source (Type 7)*
- ☐ Nitrate and Nitrite
- ☐ Nitrite (only)*
- ☐ Nutrients, Total (circle: Type 2 , Type 4 or Type 6)
- ☐ Nutrients, Dissolved (Type 9)
- ☐ Odor (TON)
- ☐ Perchlorate
- ☐ pH
- ☐ Phosphate
- ☐ Silica
- ☐ Sulfate
- ☐ Sulfide
- ☐ TDS
- ☐ TSS
- ☐ TOC
- ☐ UV254
- ☐ Turbidity
- ☐ Metals, Total (circle: Type 7 or Type 9)
- ☐ Metals, Dissovled (circle: Type 3 or Type 4)
- ☐ Metals (check individual below)
- ☐ RCRA TCLP-Metals* (check individual below)

Dissolved Metals	Total Metals
☐ Arsenic	☐ Aluminum
☐ Barium	☐ Antimony
☐ Boron	☐ Arsenic
☐ Cadmium	☐ Barium
☐ Chromium	☐ Beryllium
☐ Calcium	☐ Cadmium
☐ Copper	☐ Chromium
☐ Iron	☐ Cobalt
☐ Mercury	☐ Copper
☐ Lead	☐ Iron
☐ Magnesium	☐ Lead
☐ Manganese	☐ Manganese
☐ Nickel	☐ Mercury
☐ Potassium	☐ Molybdenum
☐ Selenium	☐ Nickel
☐ Silver	☐ Selenium
☐ Sodium	☐ Silver
☐ Zinc	☐ Vanadium
	☐ Thallium
	☐ Zinc

- ☐ Other:_____
- ☐ Other:_____
- ☐ Other:_____

RADIOLOGIC CHEMISTRY

- ☐ Gross Alpha
- ☐ Gross Beta
- ☐ Gross Gamma
- ☐ Radium-226
- ☐ Radium-228
- ☐ Radon
- ☐ Uranium, Filtered
- ☐ Uranium, Unfiltered

ENVIRONMENTAL MICROBIOLOGY

- ☐ Aeromonas
- ☐ Cryptosporidium and Giardia
  - field turbidity _____
  - time start filtering_____
  - time end filtering_____
  - total volume filtered_____
- ☐ HPC
- ☐ Legionella
- ☐ Total, Fecal Coliform (Surface Water, Type 6)
- ☐ Enterococcus (Type 9)
- ☐ Total Coliform, Fecal Coliform (E. coli)
  - ☐ Culinary,Finished Water
  - ☐ Pool,Spa
  - ☐ Raw, Untreated
  - ☐ RO, Deionized, Reagent
  - ☐ Routine
  - ☐ Repeat lab#_____date:_____
  - ☐ Health Department Investigative
  - ☐ Private Investigative (no official record)

*indicates tests that require pre-analysis scheduling at 801-883-4655

WATER BACTERIOLOGICAL ANALYSIS TEST REQUEST FORM
UTAH STATE PUBLIC HEALTH LAB, 46 N MEDICAL DR., SLC, UT 84113-1105, (801) 584-8400, FAX 584-8486
PLEASE USE A BALL POINT PEN AND PRINT CLEARLY WHEN COMPLETING THE FORM

SYSTEM #:	SYSTEM NAME:	**FOR LABORATORY USE ONLY** LAB#	RECEIVED DATE/TIME STAMP
SAMPLING POINT DESCRIPTION:			ANALYZED DATE/TIME STAMP
COLLECTED BY:		TEMPERATURE:	CONDITION: ICE / NO ICE
COLLECTION DATE AND TIME (24 HOUR CLOCK):		**SAMPLE NOT ANALYZED / SUBMIT NEW SAMPLE**	

TYPE OF SAMPLE
- ☐ PUBLIC WATER SYSTEM
- ☐ PRIVATE WATER SYSTEM (Well, Spring, etc.)
- ☐ POOL/SPA/HOT TUB (Chlorinated☐yes☐no ppm_____)
- ☐ OTHER (RO, Deionized, Raw, etc.)_____

SAMPLE NOT ANALYZED / SUBMIT NEW SAMPLE
- ☐ EXCEEDED HOLDING TIME (Over 30 hrs from collection to lab receipt)
- ☐ COLLECTION DATE AND TIME NOT RECORDED
- ☐ FROZEN
- ☐ LEAKED
- ☐ NOT STATE LAB CONTAINER
- ☐ OTHER _____

09/2004 CT

TYPE OF PROCESSING
- ☐ ROUTINE
- ☐ REPEAT LAB#:_____ DATE:_____
- ☐ HEALTH DEPARTMENT INVESTIGATIVE
- ☐ PRIVATE INVESTIGATIVE (NOT FOR OFFICIAL RECORDS)

CONTACT INFORMATION
State Laboratory - Environmental Microbiology (801) 584-8400
State Division of Drinking Water (801) 536-4200
Contact Your Local Health Department for Pool, Spa, and Hot Tub Information

REPORTING INFORMATION
NAME:
ADDRESS:
CITY:
STATE/ZIP:
PHONE: FAX:
EMAIL:

BILLING INFORMATION
NAME:
ADDRESS:
CITY:
STATE/ ZIP:
PHONE: FAX:

Pool/ Spa/ Hot tub samples will have a colilert test and a heterotropic plate count performed on each sample. All other samples will have only a colilert test performed unless specified in "other". The colilert test consists of coliform and *E. coli* analysis.

INSTRUCTIONS FOR COLLECTING WATER SAMPLES

1. Do not rinse bottle or touch the lip of bottle.
2. Use only approved containers.
3. Return sample to lab within 24 hours of collection and refrigerate or hold on ice until delivery, also do not allow to freeze. Preferably hold sample at less tha 10 degrees Celsius (50 degrees Fahrenheit).
4. Collect sample by removing aerator from tap and letting water run for 2-3 minutes. Fill bottle above the the 100 mL line
5. If collecting sample from lake, pond, or type of source water, submerge the bottle, forcing it forward with an even slow motion
6. Select sampling point that will be representative of the system being tested
7. Fill out test request form completely.

STATE OF UTAH COLIFORM REGULATIONS (FOR DRINKING WATER ONLY)

For routine sample which are total coliform positive

1. System must collect the number of repeat samples indicated below for each total coliform positive result

Population	# of repeat samples
25-1,000	4
>1,000	3

2. The repeat samples must taken within 24 hours of the original positive sample and the repeat test request must indicate the lab number and date of the origina positive sample. Specific locations of repeat samples are as follows:
   a. within 5 service connections upstream
   b. within 5 service connections downstream
   c. at the original sample site
3. Additional samples are required for the next month's sampling. The number of additional samples are as follows

Population	# of routine	# of additional samples
25-1,000	1	4
1,000-2,500	2	3
2,500-3,300	3	2
3,300-4,100	4	1
>4,100	5 or more	none

For *E. coli* positive samples and repeat samples resulting in total coliform positive:

1. If either the original routine sample or any of the repeat samples are fecal coliform positive for *E. coli*, an acute violation has occurred and public notice is required within 72 hours.
2. If both the original routine sample and all repeat samples are total coliform positive, a non-acute violation has occurred and public notice is required within 14 days

Utah
Department of Health
Bureau of Chemical and Environmental Services

CHAIN OF CUSTODY

46 North Medical Drive, Salt Lake City, UT 84113-1105
Phone 801-883-4655 Fax 801-584-8251
URL http://health.utah.gov/els/envsrv

☐ Hand delivered
☐ Shipped samples
☐ Cooler returned

System/Agency Name:	System/Agency Number:	Cost/Project Code:

REPORTING/CONTACT

Attn:
Address:
City, State, ZIP:
Phone:
Fax:
Email:
Submitted by:

BILLING (list if different)

Special code:
Attn:
Address:
City, State, ZIP:
Phone:
Fax:

REQUESTED TESTS

Received Date and Time:

Sample Receipt Conditions
COOLANT / NO COOLANT

Yes	No	
☐	☐	Documentation complete
☐	☐	Temperature within-range
☐	☐	Within holding time
☐	☐	Proper containers and in-date
☐	☐	Containers intact
☐	☐	Acceptable pH ☐ N/A
☐	☐	Custody seals intact

COLLECTION POINT DESCRIPTION	COLLECTED BY (initials)	COLLECTED DATE (mm/dd/yy)	COLLECTED TIME (24 hour)	COMMENTS	Receipt temperature	Receipt pH	LAB NUMBER

Dispatched by:	Date and Time:	Courier Company Name:	Invoice/Airbill #:
Relinquished by	Date and Time:	Received by:	Date and Time:
Relinquished to DLS by:	Date and Time:	Received to DLS by:	Date and Time: