

Container Requirements



2011

www.fremontanalytical.com

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GENERAL INFORMATION



Fremont Analytical Inc. (FAI) is a full service environmental laboratory located in the Fremont neighborhood in Seattle, WA. Fremont Analytical offers a full range of analytical services including organic, inorganic and general chemistry analyses for soil, water and air. The Washington State Department of Ecology has endorsed Fremont Analytical with certified accreditation.

OUR SERVICES

VOLATILE ORGANICS

Laboratory services include volatile and semi-volatile organic (BNA, PAH) analysis by Gas Chromatography / Mass Spectrometry (GCMS) for sample matrices that include: Soil, Water, Vapor and Sediment.

INORGANICS & TRACE METAL ANALYSIS (ICP-MS)

Analysis of soil, ground & drinking water for trace metals, non-metals and inorganic compounds.

SPECIALITY ORGANICS (PCBS, PESTICIDES, HERBICIDES & PENTACHLOROPHENOL)

Providing low-level detection and rapid turnaround for specialty organics for all sample matrices.

STORM WATER

In accordance with The Washington State Department of Ecology's storm water permitting process, Fremont Analytical, Inc. provides complete and timely analysis of surface/storm water samples.

DRINKING WATER

Analysis of organic and inorganic drinking water analytes required by the Safe Drinking Water Act (SDWA).

AIR ANALYSIS

Analysis of Volatile Organic Compounds, Major Gases, Sulfur Compounds and Siloxanes.

ANALYTICAL METHODS

Fremont Analytical is certified by the Washington State Department of Ecology for organic, inorganic and general chemistry analyses. The laboratory follows approved Environmental Protection Agency (EPA), Standard Methods for the Examination of Water and Waste Water, and WADOE methods. The laboratory may deviate from these methodologies due to the nature or composition of the sample, based on the reasonable judgment of the laboratory. Such modifications will be done in a manner consistent with recognized analytical procedures and good laboratory practices.

SAMPLE RECEIVING

Sample receiving hours are between 8:00am and 5:00pm – Monday through Friday. Samples received after regular business hours will be logged in the next morning. If samples are received after 4:00pm, the agreed-upon turn-around time (TAT) will not begin until 8:00am the next business day. We can accommodate delivery after hours on weekends and on holidays, if scheduled in advance.

SAMPLE HOLDING TIMES

Samples should be received by Fremont Analytical as soon as possible. Please refer to *Container Requirements* for sample holding times, preservatives and sample collection requirements.

TURNAROUND TIMES

Standard turnaround is 5 days from the date of sample receipt for most sample analyses. We also offer expedited turnaround on many types of analyses, including:

- 3 Day (50% surcharge)
- 2 Day (75% surcharge)
- Next Day (100% Surcharge)
- Same Day Service – Call for Quote.

Expedited turnaround should be coordinated in advance. Contact us to discuss dates and data delivery requirements.

Samples received by FAI near the end of a holding time period may incur an expedited analysis surcharge.

SAMPLE CONTAINERS

Fremont Analytical Inc. (FAI) can provide you with sample containers with the appropriate preservatives, labels, coolers and Chain of Custody forms for specific analytical methods at no cost to the client. FAI reserves the right to charge for unreturned sample containers/materials, extra sample containers, and/or samples placed on hold and not used. Please contact us with your bottle order and/or any specific requirements.

SAMPLE PICK UP

Fremont Analytical offers sample pick-up and/or delivery of supplies at your office and/or field locations within the greater Seattle Area. Outgoing shipping outside of the greater Seattle area is included in the listed prices on orders over \$300. Clients are responsible for all sample-day couriers, returns and any expedited delivery charges. Couriers used by FAI are independent contractors. FAI is not responsible for anything that happens to the samples in transit to the laboratory. Please contact us for your specific requirements.

SAMPLE DISPOSAL

Fremont Analytical Inc. (FAI) will archive samples for 30 days. Afterwards FAI will dispose of the samples appropriately. Clients should contact FAI to retrieve their samples before disposal and/or arrange for storage beyond the standard 30 days. A \$5.00 monthly fee, per sample, will be applied for storage beyond 30 days.

Certain hazardous samples, and/ or samples placed on hold may be returned to the client upon completion of the project. FAI reserves the right to charge a disposal fee (not to exceed \$25.00/sample) for samples requiring special packaging and labeling as Hazardous Materials. “Hazardous Materials” include, but are not limited to, substances of any kind which are potentially poisonous, toxic, radioactive, explosive, flammable, contain biohazards, high levels of trace metals, or pose any risk to persons or the environment, through handling or disposal.

CONTAINER REQUIREMENTS



SOIL

Parameter	Method	Container/Preservatives	Holding Time
Alkalinity	SM 2320B Modified	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 14 Days
Anions - Br, Cl, F, SO ₄	EPA 300.0	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Anions - NO ₂ , NO ₃ , PO ₄	EPA 300.0	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 48 Hours
BTEX / Gasoline Range Hydrocarbons	EPA 8021B/8260	4 to 8 oz Glass Jar / Field Preservation Kit / Cool 4°C	Analyze within 14 Days
Cyanide	SM 4500-CN C,E	2-4 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Diesel Range Organics	NWTPH-Dx/EPA 8015/AK102-103	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction
Extractable Petroleum Hydrocarbons (EPH)	NWEPH	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction

Soil Cont.			
Parameter	Method	Container/Preservatives	Holding Time
Herbicides	EPA 8151A	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction
Hexavalent Chromium	EPA 7196	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Ignitability / Flashpoint	ASTM D93/ SW 1010	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Langelier Index / Corrosivity	SM 2330B	2-4 oz Glass Jar / Cool 4°C	Analyze immediately
Mercury (Hg)	EPA 6020/7471	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Metals (Except Mercury)	EPA 6020	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 6 Months
Pentachlorophenol	EPA 8151	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 14 Days
Pesticides	EPA 8081/8141A	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction
pH	EPA 9045D	2-4 oz Glass Jar / Cool 4°C	Analyze immediately
Phosphorus, Total	EPA 365.3	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Polychlorinated Biphenyls (PCBs/Aroclor)	EPA 8082	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction
Semi Volatile Organic Compounds (sVOC)	EPA 8270	4 to 8 oz Glass Jar / Cool 4°C	Extract within 14 Days / Analyze within 40 Days of Extraction
Salinity	EPA 2520B	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 8 Days
TCLP/SPLP - Metals	1311/1312	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 128 Days (Hg = 28 days)
TCLP/SPLP - ZHE	1311/1312	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 14 Days
Total Organic Carbon	EPA 9060A	4 to 8 oz Glass Jar / Cool 4°C	Analyze within 28 Days
Volatile Organic Compounds (VOC)	EPA 8260	4 to 8 oz Glass Jar / Field Preservation Kit / Cool 4°C	Analyze within 14 Days
Volatile Petroleum Hydrocarbons (VPH)	NWVPH	4 to 8 oz Glass Jar / Field Preservation Kit / Cool 4°C	Analyze within 14 Days

WATER

Parameter	Method	Container/Preservatives	Holding Time
Alkalinity	SM 2320B	500mL/1L Polyethylene / Cool 4°C	Analyze within 28 Days
Anions - Br, Cl, F, SO ₄	EPA 300.0	250 mL Polyethylene / Cool 4°C	Analyze within 28 Days
Anions - NO ₂ , NO ₃ , PO ₄	EPA 300.0	250 mL Polyethylene / Cool 4°C	Analyze within 48 Hours
Biological Oxygen Demand (BOD)	SM 5210B	1 L Polyethylene / Cool 4°C	Analyze within 48 Hours
BTEX / Gasoline Range Hydrocarbons	EPA 8021B/8260	40 mL Glass VOA Vial / Cool 4°C, HCl	Analyze within 14 Days
Chemical Oxygen Demand (COD)	SM 5220D	250 mL Polyethylene / Cool 4°C, H ₂ SO ₄	Analyze within 28 Days
Coliform, Fecal	SM 9222	110 mL Sterile / Cool 4°C	Analyze within 6 hrs
Total Bacteria (E. Coli)	EPA 1604	110 mL Sterile / Cool 4°C	Analyze within 6 hrs
Cyanide, Total	SM 4500-CN C,E	500 mL Polyethylene / Cool 4°C, NaOH	Analyze within 14 Days
Diesel Range Organics	NWTPH-Dx/EPA 8015/AK102-103	1 L Amber Glass / Cool 4°C/HCl	Extract within 14 Days / Analyze within 40 Days of Extraction
Dissolved Organic Carbon	SM 5310B	250/500 mL Amber Glass / Cool 4°C, H ₂ SO ₄ , Protect from Sunlight	Analyze within 28 Days
Dissolved Oxygen	ASTM D888	BOD Bottle / Cool 4°C	<15 min
Extractable Petroleum Hydrocarbons (EPH)	NWEPH	1 L Amber Glass / Cool 4°C/HCl	Extract within 14 Days / Analyze within 40 Days of Extraction
Herbicides	EPA 8151A	1 L Amber Glass / Cool 4°C	Extract within 7 Days / Analyze within 40 Days of Extraction
Hexavalent Chromium	EPA 7196	250 to 500 mL Polyethylene / Cool 4°C	Analyze within 24 Hours

Water Cont.			
Parameter	Method	Container/Preservatives	Holding Time
Ignitability / Flashpoint	ASTM D93/EPA 1010A	250 mL Amber Glass / Cool 4°C	Analyze within 28 Days
Langelier Index / Corrosivity (Alk, Ca, pH, TDS)	SM 2330B	1 L Polyethylene / Cool 4°C	Analyze pH immediately
Mercury (Hg)	EPA 200.8/245.1/7470	250 to 500 mL Polyethylene / Cool 4°C, HNO ₃	Analyze within 28 Days
Metals, Dissolved (Except Mercury)	EPA 6020/200.8	250 to 500 mL Polyethylene (Field Filter) / Cool 4°C, HNO ₃	Analyze within 6 Months
Metals, Total (Except Mercury)	EPA 6020/200.8	250 to 500 mL Polyethylene / Cool 4°C, HNO ₃	Analyze within 6 Months
Methane, Ethane, and Ethene	RSK-175	40 mL Glass VOA Vial / Cool 4°C, HCl	Analyze within 14 Days
Nitrogen			
Ammonia	SM 4500 NH ₃ D	1L Polyethylene / Cool 4°C, H ₂ SO ₄	Analyze within 28 Days
Kjeldahl	SM 4500N	500 mL to 1 L Polyethylene / Cool 4°C, H ₂ SO ₄	Analyze within 28 Days
Nitrate	EPA 300.0	250 mL Polyethylene / Cool 4°C	Analyze within 48 Hours
Nitrite	EPA 300.0	250 mL Polyethylene / Cool 4°C	Analyze within 48 Hours
Nitrate+Nitrite	EPA 300.0	250 mL Polyethylene / Cool 4°C	Analyze within 48 Hours
Oil & Grease	EPA 1664	1 L Amber Glass / Cool 4°C	Analyze within 28 Days
Pentachlorophenol	EPA 8151	1 L Amber Glass / Cool 4°C	Analyze within 14 Days
Pesticides	EPA 8081/8141A	1 L Amber Glass / Cool 4°C	Extract within 7 Days / Analyze within 40 Days of Extraction
pH	SM 4500H+B	250 mL Polyethylene / Cool 4°C	ASAP
Phosphorus, Total	EPA 365.3	500 mL Polyethylene / Cool 4°C	Analyze within 28 Days
Polychlorinated Biphenyls (PCBs/Aroclor)	EPA 8082	1 L Amber Glass / Cool 4°C	Extract within 7 Days / Analyze within 40 Days of Extraction
Residual Chlorine	SM 4500Cl	250 mL Amber Glass / Cool 4°C	<15 min
Salinity	EPA 2520B	250 mL Polyethylene / Cool 4°C	Analyze within 8 Days
Semi Volatile Organic Compounds (BNA, PAH)	EPA 8270	1 L Amber Glass / Cool 4°C	Extract within 7 Days / Analyze within 40 Days of Extraction
Solids			
Settleable	SM 2540F	1 L Polyethylene / Cool 4°C	Analyze within 48 Hours
Total	SM 2540B	500 mL Polyethylene / Cool 4°C	Analyze within 7 Days
Total Dissolved (TDS)	SM 2540C	500 mL Polyethylene / Cool 4°C	Analyze within 7 Days
Total Suspended (TSS)	SM 2540D	500 mL Polyethylene / Cool 4°C	Analyze within 7 Days
Total Volatile (TVS)	SM 2540E	500 mL Polyethylene / Cool 4°C	Analyze within 7 Days
Specific Conductance (Conductivity)	SM 2510B	250 mL Polyethylene / Cool 4°C	Analyze within 48 hrs
Sulfide	SM 4500-S ²⁻ F	500 mL Polyethylene / Cool 4°C, Zn Acetate, H ₂ SO ₄	Analyze within 7 days
Sulfite	SM 4500-SO ₃	250 mL Polyethylene / Cool 4°C	Analyze within ASAP
Total Organic Carbons (TOC)	SM 5310B	250/500 mL Amber Glass / Cool 4°C, H ₂ SO ₄ .Protect from Sunlight	Analyze within 28 Days
Turbidity	EPA 180.1	250 mL Polyethylene / Cool 4°C	Analyze within 48 Hours
Volatile Fatty Acids / Volatile Aliphatic Organic Anions	FAIC_Column 11	40 mL Glass VOA Vial	Analyze within 14 Days
Volatile Organic Compounds (VOC)	EPA 8260	40 mL Glass VOA Vial / Cool 4°C, HCl	Analyze within 14 Days
Volatile Petroleum Hydrocarbons (VPH)	NWVPH	40 mL Glass VOA Vial / Cool 4°C, HCl	Analyze within 14 Days

DRINKING WATER

Parameter	Method	Container/Preservatives	Holding Time
1,2-Dibromoethane (EDB) / 1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	2-40 mL VOA Vials / Cool 4°C, 0.5 mL Na ₂ S ₂ O ₃	Analyze within 14 Days
11 Regulated Metals	EPA 200.8/245.1	250 mL Polyethylene / Cool 4°C	180 Days (28 Days for Mercury) after lab preservation
Carbamates	EPA 531.1	40 mL Amber VOA Vial / Cool 4°C, 0.5 mL Na ₂ S ₂ O ₃ + 0.5 mL MCAA	Analyze within 28 Days
Coliform, Total	SM 9222D (MF)	110 mL Sterile / Cool 4°C, Na ₂ S ₂ O ₃	30 Hours
Diquat	EPA 549.2	1 L Amber Glass / Cool 4°C, 80 mg Na ₂ S ₂ O ₃	Analyze within 7 Days
Dissolved Organic Carbon (DOC)	SM 5310C	250 mL Amber Glass / Cool 4°C	Analyze within 28 Days
Endothal	EPA 548.1	250 mL Amber Glass / Cool 4°C, 2 mL Na ₂ S ₂ O ₃	Analyze within 7 Days
Glyphosate	EPA 547	40 mL Amber Glass VOA Vial / Cool 4°C	Analyze within 14 Days
Haloacetic Acids (HAAs)	EPA 552.2	125 mL Amber Glass / Cool 4°C	Analyze within 14 Days
Herbicides	EPA 515.4	250 mL Amber Glass / Cool 4°C, 12 mg Na ₂ S ₂ O ₃	Analyze within 14 Days
Inorganic DBP (Bromate, Chlorite)	EPA 300.1	250 mL Amber Glass / Cool 4°C	Analyze within 14 Days
Lead and Copper Rule	EPA 200.8	1 L Polyethylene / Cool 4°C, HNO ₃	180 days after lab preservation
Pesticides/PCBs	EPA 508	1 L Amber Glass / Cool 4°C, 8 mL Na ₂ S ₂ O ₃	Analyze within 7 Days
pH	SM 4500H+B	250 mL Polyethylene / Cool 4°C	Analyze immediately
Synthetic Organic Contaminants	EPA 525.2	1L Amber Glass / Cool 4°C, 50 mg Na ₂ S ₂ O ₃ + HCl	Analyze within 14 Days
Total Organic Carbon (TOC)	SM 5310B	500 mL Amber Glass / Cool 4°C, H ₂ SO ₄ , Protect from Sunlight	Analyze within 28 Days
Trihalomethanes (THM's)	EPA 524.2	3-40 mL VOA Vials / Cool 4°C	Analyze within 14 Days
Ultraviolet (UV)/Specific UV Absorbance (SUVA)	SM 5910B/5310C	125 mL/1-250 mL Amber Glass / Cool 4°C	Analyze within 48 Hours
Volatile Organic Compounds (VOC)	EPA 524.2	3-40 mL VOA Vials / Cool 4°C, 50 mg ascorbic acid + 1:1 HCl	Analyze within 14 Days

AIR

Parameter	Method	Container/Preservatives	Holding Time
Volatile Organic Compounds	TO-14/TO-15	Tedlar Bag/Summa Canister	Analyze within 72 hours/30 days
Sulfur Compounds	TO-15	Tedlar Bag /Summa Canister	Analyze within 24 hours
Siloxanes	TO-15	Tedlar Bag/Summa Canister	Analyze within 72 hours/30 days
Major Gases	EPA Method 3C	Tedlar Bag	Analyze within 72 hours

CONTACT



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