

FORENSICS & SPECIALTY CHEMISTRY, CALGARY



Sample Procedures & Requirements

ALWAYS SHIP 2X OF EACH CONTAINER, IF POSSIBLE

TEST	LIMS CODE	CONTAINER TYPE	SHIPPING TEMP	HOLD TIME	PRESERVATIVE	COMMENTS
2D GC	*see note below	Soil - 250 mL amber or clear jar Water - 250 mL amber bottle Product - 40 mL amber or clear vial	Cool 4 ± 3°C	NA	NA	
Basic Qualitative Fingerprint	60112 FID with prep 60130 GCMS 60148 2D-FID 60149 2D-TOF	Soil - 250 mL amber or clear jar Water - 250 mL amber bottle Product - 40 mL amber or clear vial	Cool 4 ± 3°C	NA	NA	
Biogenic/Petrogenic Toluene - Solid (Peat, soil, wood chips, etc)	60114	125 mL amber jar, no headspace	Cool 4 ± 3°C	14 days from collection	NA	Analyze no longer than 40 days from extraction
Biogenic/Petrogenic Toluene - Liquid (Surface water, groundwater, etc)	60114	40 mL amber vial, no headspace	Cool 4 ± 3°C	14 days from collection	NA	Analyze no longer than 40 days from extraction
Biomarkers - Soil	*see note below	250 mL amber or clear jar, no headspace	Cool 4 ± 3°C	Suggested 30 days	NA	Biomarker analysis is an unregulated test with no specified hold time. Suggested hold is 30 days
Biomarkers - Product	*see note below	40 mL amber or clear vial	Cool 4 ± 3°C	Suggested 30 days	NA	Biomarker analysis is an unregulated test with no specified hold time. Suggested hold is 30 days
Breathing Air	60350 *see note below	Tedlar bag or cylinder	Room temperature	Tedlar bag 72 hours Cylinder no hold	NA	Caution should be taken to not overfill Tedlar bags
Dioxins in Air	196003 BY GCMS 196033 BY GCMSMS	PUF, XAD trap, filters, impingers	Cool 4 ± 3°C	No demonstrated maximum hold as per EPA 1613	NA	
Dioxins in Soil	196001 GCMS 196031 GCMSMS	2x 125 - 250 mL amber glass jars	Cool 4 ± 3°C	No demonstrated maximum hold as per EPA 1613	NA	
Dioxins in Water	196002 GCMS 196032 GCMSMS	2x 1L amber glass bottles with Teflon lined lids	Cool 4 ± 3°C	No demonstrated maximum hold as per EPA 1613	NA	
ICP-QQQ Metals	*see LIMS codes listing, see note below	Minimum 50 mL in pre-cleaned LDPE or polypropylene bottles	Room temperature	28 days at room temperature	NA	
ICP-QQQ Precious Metals, Dissolved Trace Metals in Water	196309	Minimum 50 mL in pre-cleaned LDPE or polypropylene bottles	Room temperature	28 days at room temperature	NA	
ICP-QQQ Precious Metals, Dissolved Trace Metals in Brine	196313	Minimum 50 mL in pre-cleaned LDPE or polypropylene bottles	Room temperature	28 days at room temperature	NA	
ICP-QQQ Precious Metals, Total Trace Metals in Water	196317	Minimum 50 mL in pre-cleaned LDPE or polypropylene bottles	Room temperature	28 days at room temperature	NA	
ICP-QQQ Precious Metals, Total Trace Metals in Water	196321	Minimum 50 mL in pre-cleaned LDPE or polypropylene bottles	Room temperature	28 days at room temperature	NA	
ICP-QQQ Arsenic Speciation	196324 As Spec Complete Scan	60 mL high density polyethylene (HDPE) bottles without headspace	Field filtered into bottles, collected samples kept cool 4 ± 3°C if to arrive within 48 hours. Freeze if longer	28 days at room temperature	NA	
ICP-QQQ Selenium Speciation	196327 Se Spec Complete Scan	60 mL high density polyethylene (HDPE) bottles without headspace	Field filtered into bottles, collected samples kept cool 4 ± 3°C if to arrive within 48 hours. Freeze if longer	28 days at room temperature	NA	
Ignitable Liquid Residue (ILR)	*see note below	AGAT approved sampling containers: unlined pretreated paint cans nylon bags pre-cleaned glass jars/vials	Cool 4 ± 3°C	Stored in the freezer at <-10°C and extracted within 30 days. Water based samples are stored at 4 ± 3°C	NA	Container/trip blank should accompany sample submission where possible. Different projects must be sent in separate coolers.
PFAS EPA 1633 list in water (40 parameters)	196010	2x 250 mL PP or HDPE containers with Teflon free or linerless lid	Cool 4 ± 3°C	Analyze within 28 days of collection	NA	
PFAS EPA 537.1 drinking water (18 parameters)	196012	2x 250 mL PP or HDPE containers with Teflon free or linerless lid	Cool 4 ± 3°C	Analyze within 28 days of collection	5.0 g/L Trizma	Preservative added by lab prior to bottles being provided to Client
PFAS EPA 533 modified drinking water (25 parameters)	196013	2x 250 mL PP or HDPE containers with Teflon free or linerless lid	Cool 4 ± 3°C	Analyze within 28 days of collection	1 g/L ammonium acetate.	Preservative added by lab prior to bottles being provided to Client
PFAS EPA 533 modified drinking water (40 parameters)	196014	2x 250 mL PP or HDPE containers with Teflon free or linerless lid	Cool 4 ± 3°C	Analyze within 28 days of collection	1 g/L ammonium acetate.	Preservative added by lab prior to bottles being provided to Client.
PFAS EPA 1633 list in soil (40 parameters)	196020	2x 250 mL PP or HDPE containers with Teflon free or linerless lid	Cool 4 ± 3°C	Analyze within 28 days of collection	NA	
Spontaneous Combustion - Soil	60393	100 g clear or amber jar	Samples must be collected, transported and stored in a manner to exclude all contact with air. Materials known or suspected to have self-heating properties should be stored in a cool place away from heat sources'	EPA 1050 states holding time criteria as: 'due to lack of an established holding time for this parameter, all samples should be analyzed as soon as possible'	NA	
Spontaneous Combustion - Liquid	60394	10 g or 35 mL in a clear or amber 40 mL vial	Samples must be collected, transported and stored in a manner to exclude all contact with air. Materials known or suspected to have self-heating properties should be stored in a cool place away from heat sources'	EPA 1050 states holding time criteria as: 'due to lack of an established holding time for this parameter, all samples should be analyzed as soon as possible'	NA	
Tetraethyl Lead in Soil by GCMS	196402	250 mL amber or clear jar, no headspace	Cool 4 ± 3°C	14 days from collection	NA	
Tetraethyl Lead in Soil by GCMS	196405	250 mL amber or clear jar, no headspace	Cool 4 ± 3°C	14 days from collection	NA	
Tetraethyl Lead in Water by GCMS	196403	250 mL amber bottle	Cool 4 ± 3°C	14 days to extraction if field preserved to pH ≥12. Extract hold time is 40 days	2 mL 6N NaOH per 250 mL sample	
Tetraethyl Lead in Water by GCMSMS	196406	250 mL amber bottle	Cool 4 ± 3°C	14 days to extraction if field preserved to pH ≥12. Extract hold time is 40 days	2 mL 6N NaOH per 250 mL sample	
Tetraethyl Lead in Oil by GCMS	60164	40 mL amber or clear vial	Cool 4 ± 3°C	14 days from collection	NA	
VOCs	*see note below	Charcoal Sorbent Tube 3M 3500+ badge Waterloo Membrane Sampler (WMS)	After sampling passive samplers should be sealed tight and shipped cold.	14 days from collection	NA	
Weathering - Soil	60116	250 mL amber or clear jar, no headspace	Cool 4 ± 3°C	14 days from collection	NA	
Weathering - Water	60116	250 mL amber bottle	Cool 4 ± 3°C	14 days from collection	NA	
Weathering - Product	60116	40 mL amber or clear vial	Cool 4 ± 3°C	14 days from collection	NA	