



# ENVIRONMENTAL CHEMISTRY TESTING



EMSL Analytical, Inc. provides Environmental Chemistry Laboratory Services primarily at the Corporate Headquarters Lab in Cinnaminson, NJ but also core regional capabilities at our labs in Indianapolis, IN; Orlando, FL; Charlotte, NC; Huntington Beach, CA; and Toronto, ON. Environmental Chemistry Testing includes a wide array of testing including sampling for RCRA (Resource Conservation & Recovery Act), SPDES (State Pollution Discharge Elimination System), NPDES (National Pollution Discharge Elimination System), CWA (Clean Water Act), SDWA (Safe Drinking Water Act), CAA (Clean Air Act) as well as for Environmental Site Investigations (i.e.: Phase I, Phase II), Remediation Projects, and various Municipal, City, or State programs requiring the testing and analysis of Drinking Water, Wastewater, Surface Water, Groundwater, Bulk Waste, Soil, Solids, Oils, and/or Air Samples. Samples are analyzed by approved EPA and Standard Methods, NIOSH Methods, ASTM, or OSHA ID Methods as well as various state-specific methodologies. EMSL's process for the analysis and reporting of the individual sample is part of an overall program that includes analysis of Quality Control (QC) samples and programs such as instrument quality controls, calibration standard checks, duplicates, and reporting limit verifications to ensure the confidence limits of the data are within the acceptable range as specified by the method requirements and our Quality Control Programs.

The Laboratory maintains primary TNI (The NELAC Institute) certification from our home state (NJDEP) as well as multiple certifications from various states. As part of the certification status, our Chemistry Lab complies with regular on-site audits from regulatory agencies and participates in a rigorous and extensive proficiency testing program. Fields of Testing certification parameters routinely are updated by the State regulatory agencies so EMSL provides the most current copy of our test parameter certifications on our web site. If a new state certification or field of test is requested by a client for our laboratory, EMSL may update our certification accordingly.

The laboratory provides testing for Organics (by GC-FID, GC-ECD, GC/MS and LC/MS/MS), Metals (GF-AA, CV-AA, ICP, ICP/MS), and Wet Chemistry (IC and various conventional test methods). Testing is primarily performed at our Corporate Environmental Chemistry Lab in New Jersey with some Metals Testing and limited Wet Chemistry Testing capabilities at our other laboratories supporting local programs and/or projects. Our Environmental Chemistry laboratories maintain business day operational hours including weekend scheduling availability as needed for critical response situations. Samples are received during regular business hours and turnaround times (TATs) are tracked on business days. Laboratory TATs offered include same day or next day, as well as for 2 day, 3 day, 4 day, 1 week, and 2 week Standard TATs. Costs/rates are weighted based on the TAT requested with our 2 week TAT rates being the most economically cost-effective for our customers.

Sample control/processing (log-in, results data-entry, reporting) is facilitated by our Laboratory Information Management System (LIMS) which tracks individual samples and Sample Delivery Groups (SDG) to help ensure we meet the clients specified due dates and special instruction directives such as reporting value data objectives and/or special QC requirements specific to the SDG. Additionally, the LIMS includes security controls to ensure that information is controlled (locked) once the data has been documented and entered by the laboratory analysts. Reports are delivered at the choice of the customer which would include email, hard-copy regular mail, or both. Additionally, EMSL can provide Electronic Data Deliverables (EDD) as well as various QC Data Packages (RDD, ASP, CLP, etc.) if required.

*Key tests include\* (but are not limited to) the following:*

## ORGANIC

- Volatile Organic Compounds (VOCs)
- Semi-Volatile Organic Compounds (SVOCs)
- Glycols (Ethylene, Propylene)
- Petroleum Hydrocarbons/DRO/GRO
- Extractable Petroleum Hydrocarbon (EPH)
- Pesticides/ Herbicides
- Polychlorinated Biphenyls (PCBs)
- Polychlorinated Aromatic Hydrocarbons
- Phthalates
- EDB, DBCP, 123-TCP
- PFNA/PFOA/PFOS

## METALS (ICP, ICP/MS, CVAA, FLAA)

- See Lead and Metals Testing Division

## TCLP / HAZWASTE

- Ignitability, Corrosivity, Reactivity
- TCLP VOA
- TCLP BNA
- TCLP Pesticides
- TCLP Herbicides
- TCLP Metals
- Priority Pollutant List TAL/TCL Lists
- Hazwaste Metals: See Lead and Metals Testing Division

## WET CHEMISTRY

- Acidity/Alkalinity/pH/Anions by IC/BOD/COD/Dissolved Oxygen/Color/Chlorine/Chloramines/Cyanide/Flashpoint/Free Liquid/Hexavalent Chromium/Langlier Index/Nitrogen (Ammonia/ Organic/TK)
- Oil and Grease (polar and non-polar)
- Phenols/Phosphorous/ Sulfide
- Solids (TDS, TSS, TVS, TVSS)
- Specific Conductance
- Surfactants (MBAS)/Turbidity

