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Ohio EPA's Laboratory

Ohio Environmental Protection Agency (Ohio EPA) staff depend on scientific data to make well-informed decisions that help protect public health and the environment.

Ohio EPA's laboratory, known as the Division of Environmental Services, provides most of this data.

Ohio EPA's first analytical chemistry lab started in 1977 in a small trailer. A staff of two tested water for seven parameters.

Today, the lab employs 35 people, including about 30 chemists and biologists who analyze environmental samples for more than 300 parameters. They also inspect other laboratories and provide technical assistance.

The lab provides chemical analyses of drinking, surface and ground water; wastewater effluent; sediment; soil; sludge; manure; air filters and air canisters; and fish tissue. On occasion, the lab has even analyzed turtle and plant tissue.

Analyses include testing for inorganic pollutants (such as mercury, cyanide, arsenic, cadmium, lead, oil, grease and *e-coli*) and organic contaminants (such as pesticides, herbicides, polychlorinated biphenyls (PCBs) and volatile organic compounds).



An Ohio EPA lab employee prepares organic water samples for analysis.



Ohio EPA's Laboratory Facility on the Ohio Department of Agriculture's campus in Reynoldsburg, Ohio.

The lab also studies wastewater effluents and sediment to evaluate the toxic impact on aquatic organisms.

The samples come from site-specific monitoring conducted by Ohio EPA field staff.

Through these efforts, Ohio EPA identifies sources of known environmental problems and reveals other pollution that might otherwise go undetected. Ohio EPA can then develop permits and management solutions to achieve environmental benefits in a cost-effective manner.

This monitoring also measures progress toward achieving compliance with environmental laws and standards and provides information on what pollution control strategies are most effective.

Most of the fish tissue samples collected during the summer are analyzed during the winter months. The fish are frozen and then ground for sampling.

Fish tissue analyses form the basis of the state's annual fish consumption advisory. Since this program began in 1994, nearly 5,750 sport fish tissue samples have been tested.

All drinking water laboratories in Ohio are inspected and certified by Ohio EPA's lab staff to ensure they have proper equipment and facilities as well as trained staff employing proper analytical techniques. The overall goal is to ensure the safety of water obtained from public water systems.

The division also administers the laboratory certification program for the Voluntary Action Program, which provides incentives for the private sector to investigate and sometimes clean up property. The requirement to use a certified lab ensures the integrity of data that determine if a site is clean enough to meet state standards for redevelopment.

Finally, lab staff provide training and technical assistance within and outside Ohio EPA regarding analytical methods and sampling requirements.