Eastex Environmental Laboratory

April 2016 Newsletter

Providing superior service and quality analysis for engineering firms, municipalities, school districts, government agencies, industrial facilities and individuals in Southeast Texas since 1986.

If you would like EEL to complete your DMR'S online, please contact Brian at 1-800-525-0508

Do you want FAST results? Visit our website at **eastexlabs.com** to learn more about Element **ClientConnect**. Watch a short **video tutorial** today!

ClientConnect allows you to access data and documents about your projects, view real time status and results, create and export data sets. Call Susan or Ruth to set up your online account.

Total Phosphorus is a growing concern and may be added to some permits. Knowing the Total Phosphorous level in the influent can help when selecting the proper treatment technique for compliance.

What is the right solution for each municipality? This is a difficult question and it depends on many factors. These factors include effluent water quality requirement(s), size of the wastewater plant and site constraints.

In many cases, phosphorus is needed so the biological nitrogen removal can occur, but there may also be a requirement for very low phosphorus in the treated water. Having both a nitrogen and phosphorus effluent limit typically requires a balancing act of providing enough phosphorus for the biological process, but then reducing it to a low enough level that can be easily and economically removed in the last stage of treatment by a biological or chemical process.

Phosphorus occurs in natural water and wastewaters almost solely as phosphates. Phosphates may enter water from agricultural run-off and as biological and industrial wastes. They may be added to water in municipal and industrial water treatment processes to control corrosion. A certain amount of phosphate is essential for most plants and animals, but too much phosphate in water can contribute to eutrophication, especially when large amounts of nitrogen are also present.

Phosphorus can be classified as orthophosphate, condensed phosphate or organically bound phosphate. Condensed phosphates are formed by dehydrating the orthophosphate radical; they include metaphosphate, pyrophosphate and polyphosphate.

Eutrophication - The process by which a body of water acquires a high concentration of nutrients, especially phosphates and nitrates.

The only form of phosphate determined directly is orthophosphate; other forms require pretreatment for conversion to orthophosphate for analysis. When no pretreatment is used, phosphate analyses determine Reactive Phosphorus. Reactive phosphorus is a measure of orthophosphate, plus a small fraction of condensed phosphate that may have been hydrolyzed during the test.

The selection of the appropriate process is dependent on the specific project conditions. There is no perfect process for every project. A municipality must evaluate all the key factors before selecting a process to determine the best solution.

Biological processes tend to be cheaper but less controlled while chemical process cost more but allow the operator to control the process more closely. In many cases this can be achieved by getting a laboratory such as Eastex Environmental to test your samples. Eastex Lab offers tests for phosphorus, orthophosphate and nitrogen. **We strongly encourage including this tests to your samples before it is added to your permit, so that you can add corrective measures.**

Lead and Copper Sampling use

PROMOCODE : PBCU6M12016

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TCEQ Interim Well form 10234 has been updated to include **Water Corrosion Parameters.**

Any well proposed as a source of water for public water supply must have plans approved for construction by TCEQ. In addition to data check list and interim approval, you must have three bacteriological analysis reports for samples collected on three successive days showing raw well water free from coliform. Chemical analysis reports for the list of problematic contaminants and the newly added corrosive water parameters Alkalinity, Calcium as CaCO3 and Sodium. The pdf version of the form can be found on TCEQ's website at http://tceq.state.tx.us/assets/public/permitting/watersupply/ud/forms/10234.pdf

On the TCEQ's website it also lists high risk counties which need Radionuclide testing. All test reports must come from an accredited laboratory such as Eastex Environmental Laboratory.

Eastex Lab joined the 5K walk/run at Coldspring High School in April 2016 to raise money for the school programs.

Monitoring Cycle

What is your E.Coli or Entero monitoring cycle? It is listed on your DMR form. Please let us know by email or call us.

Total Coliform Rule (RTCR) Revised by EPA: ALL Public Water Systems Must Comply By April 1 2016.

January 2016—The EPA updated 1989 Total Coliform Rule to increase public health protection. The revised rule establishes a maximum contaminant level for E. Coli and uses E. Coli and total coliforms to initiate a "find and fix" approach to prevent fecal contamination from entering the distribution system. The rule requires all public water systems (PWS) to monitor for the presence of total coliforms and E. Coli in the distribution system.

The rule changes include:

- Sample siting plan and repeat sampling and reporting requirements due April 1st 2016 to TCEQ
- E.coli maximum contaminant level (MCL)
- Assessment requirements and deadlines
- Seasonal water system start-up procedures
- Treatment technique violations and reporting requirements
- Boil water notice and public notice requirements.

Email your **permit** to us, so we can help monitor your limits.

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Lead and Copper Sampling 6M1 2016 Cycle has began. Please check if you are on the 6M1 schedule. If you need help, contact Eastex Lab.

Is your preservative expired?

Some analysis, such as ammonia and metals require preservative to be a valid sample. Dechlorinating compounds and diluted acid will deteriorate and expire after some time or may become contaminated. Be sure and review expiration dates of these chemicals and request replacements if needed. These are some items that TCEQ field inspectors will review and it is always good to beat them to the punch!