

**MAJOR FUNCTION**

This is professional chemical laboratory work performing routine and non-routine laboratory analyses. Duties are performed in accordance with established policies and procedures under the supervision of the Supervisor-Analytical Chemistry Laboratory. Work is reviewed through observation, conferences, reports, and by results obtained.

**ESSENTIAL AND OTHER IMPORTANT JOB DUTIES****Essential Duties**

Performs analyses on water, wastewater, groundwater, sediments, sludges and related environmental samples. Performs routine maintenance on electronic analytical equipment used for analyzing samples. Communicates supply needs to supervisor. Analyzes environmental samples for physical and chemical parameters such as nutrients, minerals, residue, trace materials and organic chemicals. Performs wet chemistry including reagent preparation and instrumental analysis using auto analyzer, atomic absorption spectrophotometer, UV/VIS spectrophotometer, GC, GC/MS & HPLC. Assists in training and providing guidance to lab technicians. Reviews own analyses for correctness and QA/QC acceptability before submitting to supervisor. Communicates analytical problems and procedures to supervisor. Assists in development of new procedures. Researches and develops new or more expedient procedures of analyses. Collates and interprets data to be stored on computer files for generation of reports and invoices. Performs related work as required.

**Other Important Duties**

Reviews literature to remain current on job specific and general developments in area(s) of responsibility. Performs related work as required.

**DESIRABLE QUALIFICATIONS****Knowledge, Abilities and Skills**

Knowledge of inorganic and organic analytical chemistry. Knowledge of mathematics. Knowledge of and ability to use analytical balance, spectrophotometer, pH meter and other standard lab equipment and glassware. Knowledge of advanced analytical procedures. Knowledge of advanced analytical instrumentation such as GC, GC/MS, HPLC, AA or auto analyzers. Ability to troubleshoot complex problems arising from electrical or mechanical failure and chemical contamination with laboratory equipment and instrumentation. Ability to learn complex analytical procedures. Ability to communicate effectively both orally and in writing. Ability to perform routine maintenance on analytical instruments. Ability to work independent of immediate supervision. Ability to establish and maintain effective working relationships as necessitated by the work. Skill in the use of microcomputers and the programs and applications necessary for successful job performance.

**Minimum Training and Experience**

Graduation from a four-year college or university with a degree in chemistry, biology, environmental science, or a related field, and two years of experience that includes duties in the analytical chemistry or environmental analysis field. A Master's Degree in one of the specified fields may be substituted for the required experience.

**Necessary Special Requirements**

Possession of a valid State driver's license at the time of appointment.

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01-09-01  
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