



USUAL & CUSTOMARY JOB ANALYSIS/DESCRIPTION

JOB TITLE:	Laboratory Supervisor
DEPARTMENT:	Environmental Services
EMPLOYER:	Vallejo Sanitation and Flood Control District 450 Ryder Street, Vallejo, California 94590
DATE PREPARED:	6/9/2004
WORK SCHEDULE/HOURS:	9/80 work schedule; 8 to 9 hours per shift, 4-5 days per week
EMPLOYEE:	
D/I:	
CLAIM NUMBER:	

Employer's Business: The employer, Vallejo Sanitation and Flood Control District, is a government agency responsible for the collection and treatment of wastewater from the sanitary sewer system and the protection from storm water.

Job Functions

Overview:

Under general supervision of the Environmental Services Director, the Senior Laboratory Technician coordinates laboratory activities, schedules and initiates all sampling and analysis for treatment plant compliance monitoring; assures that all data generated is both accurate and precise, and supervises others in performing tests to assist in the control of the wastewater treatment plant. The Senior Laboratory Technician is responsible for supervising the Laboratory Technician(s) and Laboratory Aide on a daily basis, assigns laboratory duties and reviews the results of laboratory analyses to assure accuracy and precision. Persons in this position are responsible for initiating a quality assurance program and sample chain of custody procedures in order to assure reliable data generation. This position is responsible for summarizing and submitting reports of treatment plant performance to the Environmental Services Director and assists in the preparation of NPDES reports.

Essential Functions:

The employee performs laboratory tests such as BOD, COD, Suspended Solids, Oil and Grease, Coliform, Chlorine residual, pH, and Dissolved Oxygen, Colorimetric analysis, flow-through acute toxicity bioassays, and heavy metal analysis.

The employee operates laboratory equipment such as pH meters, analytical balances, DO meters, drying ovens, UV/VIS spectrophotometers, A.A. spectrophotometers, autoclaves and microscopes.

The employee utilizes a computer keyboard, mouse and views a monitor to enter or retrieve lab data, lab reports, analysis performed by the technicians.

The employee utilizes a writing utensil to complete paperwork including logs, data analysis, quality control charts, reports and lab data.

The employee maintains records and reviews data to assure that it meets or exceeds quality assurance criteria by implementing a quality assurance/quality control program.

The employee prepares and assists in the preparation of reports.

The employee schedules and initiates sampling from the treatment plant, remote industrial or random collection points for routine laboratory analysis.

The employee schedules and oversees routing analytical testing and reviews results for accuracy.

The employee, as needed, is required to perform Laboratory Technician tasks approximately 2 to 3 times per year or as needed.

The employee performs laboratory tests to operate laboratory equipment.

The employee supervises Laboratory Technician(s) and Laboratory Aide.

The employee, as needed, performs BOD testing, includes transferring liquids from a 15-liter bottle and into smaller sized sample containers, mixes the contents and inserts a probe to test.

The employee, as needed, performs oil/grease and ammonia testing in conjunction with working underneath a ventilation hood. Includes shaking bottled liquid contents, transferring liquids from a 1-liter container into smaller sample containers. Ammonia testing requires the employee to insert a probe, utilizing a keypad to program the testing equipment and obtaining the test results.

The employee, as needed, works at a counter, has the option to utilize a stool, and observes organisms through microscopes.

The employee, as needed, performs microbiology tasks. Includes setting items in and out of the incubator.

The employee utilizes a 10-key calculator to assess calculations.

The employee, as needed, performs metal analysis. Includes utilizing specialty equipment to measure metals in solutions.

The employee, as needed, performs bioassays. Includes placing fish in a water tank and monitoring the fish to assure solution compliance.

The employee, as needed, connects/disconnects tubing to and from equipment, as needed utilizes a screwdriver to assemble or disassemble equipment.

The employee, as needed, maintains a variety of laboratory equipment including sampling, flow metering and other associated equipment. Includes utilizing a washcloth to wipe and clean equipment, as needed a screwdriver to assemble/disassemble the sampler while cleaning.

The employee, as needed, works at a sink to wash and clean glassware. Includes utilizing brushes, sponges and water to wash items. Once washed, the employee places the glassware on a sink counter or glass rack. Alternatively, the employee sets and retrieves items in and out of an automated dishwasher.

The employee, as needed, utilizes a trigger-operated pipette to transfer liquids into test tubes.

The employee, as needed, places and sets items in and out of a microwave, includes opening the microwave door, placing the item in the microwave and pressing microwave buttons to activate. Alternatively, the employee, sets/retrieves items from the oven.

The employee, as needed, retrieves, relocates and handles sample jugs, containers, flasks, precision instrumentation and other related items.

The employee, as needed, performs laboratory tests and procuring samples to assist in the control of the wastewater treatment plant. Includes measuring, utilizing laboratory tools to scoop/transfer powders, utilizing an electric scale to weigh solids.

The employee, as needed, sanitizes lab tools and equipment Includes setting/retrieving items in and out of an autoclave. The employee opens/closes the autoclave door, places and retrieves tools or equipment from the autoclave racks and activates the autoclave.

The employee maintains records of analysis.

The employee, as needed, mixes liquids, includes setting items on an electric vibrating plate or alternatively utilizes a glass stir tool to mix liquids.

The employee, as needed, operates an oxygen meter to assess oxygen levels in liquids, includes inserting a probe in a container.

Marginal Functions:

The employee utilizes a copier to make copies, as needed. This entails opening the copier door in an upward/downward motion (exertion <5 lbs.), placing the paperwork on the copier and pressing a button to activate the copier. Alternatively, the employee places a stack of papers on a document holder and presses a button to activate.

The employee retrieves and sets paperwork/files, as needed, in and out of file cabinet drawers.

The employee utilizes a fax machine, as needed. This entails setting individual papers in the fax machine, pressing 7 to 10 buttons to obtain the desired telephone numbers and pressing a button to activate the fax.

Minimum Qualifications

**EDUCATION &
EXPERIENCE**

Graduation from a four year college course with a major in the physical sciences or the completion of college level courses equivalent to an A.S. degree and two (2) years of experience. Experience may be substituted for education on a two (2) years of experience for one (1) year of education basis up to a maximum of two (2) years. Experience must be in a laboratory performing tests similar to those described herein.

**KNOWLEDGE, SKILLS
& ABILITIES**

Understand and follow oral and written instructions
 Ability to delegate and accept direction
 Ability to prepare clear, complete and technically accurate data summaries and reports
 Ability to enter data in a compute and must have a basic understanding of computer operations
 Ability to communicate with irate or difficult people
 Ability to accept constructive criticism from supervisor, coworkers, subordinate employees

LICENSE(S)

Must possess a California Water Pollution Control Association certificate as a Grade II Laboratory Technologist at the time of employment.
 Must possess a valid California Class C Driver's License at the time of employment. The ability to drive District vehicles is a specific requirement for this position. For that reason, it is the employee's responsibility to maintain a driving record that is acceptable to the District's insurance carrier or be subject to dismissal.

WEIGHED ITEMS	Bottles on a rack – 15 pounds 2.5 gallon container with a liquid solution – less than 25 pounds Cooler with ice packs – 10 pounds Container of bottled water – 30 pounds
EXERTIONAL FORCE	Autoclave door handle – up to 25 pounds Incubator door handle – up to 25 pounds

Physical Demands

For the purpose of determining frequency of activity, this job analyst refers to an eight-hour workday.

STANDING	Frequency: Duration: Surfaces: Associated Tasks:	Less than 1 to 3 hours. Seconds to less than 5 minutes at a time. Concrete, tile. Performing presentations, supervising employees, working at a sink and washing glassware, utilizing the microwave, transferring liquids, maintaining a variety of laboratory equipment including the autoclave, electric vibrating plate, inspecting and maintaining a clean wet well, performing microbiology, metal analysis, bioassays, connecting/disconnecting tubing, performing oil/grease and ammonia testing, shaking bottled liquid contents.
WALKING	Frequency: Duration: Surfaces: Associated Tasks:	Less than 1 to 3 hours. Seconds to less than 5 minutes at a time. Concrete, tile. Walking within the office, to and from the wet well, within the laboratory, relocating tools, equipment, samples.
SITTING	Frequency: Duration: Surfaces: Associated Tasks:	4 to 7 hours. Less than ½ hour at a time. Cushioned office chair. Utilizing a computer, writing, reading, weighing samples.
KNEELING/ CROUCHING/ SQUATTING	Frequency: Duration: Surfaces: Associated Tasks:	0 to 10 times. Seconds at a time. Concrete, tile. Retrieving and setting items including samples on and off lower areas/shelves.
CRAWLING	Frequency: Duration: Surfaces: Associated Tasks:	Not a job requirement.
LAYING ON BACK/STOMACH	Frequency: Duration: Surfaces: Associated Tasks:	Not a job requirement.
CLIMBING/ BALANCING	Frequency: Duration: Surfaces: Associated Tasks:	0 to 4 times. Seconds at a time. Stepstool. Ascending or descending stepstool to retrieve items from higher shelves, ascending or descending plant stair flights to access and inspecting plant equipment.

BENDING		
Waist:	Frequency: Duration: Associated Tasks:	0 to less than 5 minutes. Seconds at a time. Possibly while inspecting the wet well, utilizing brushes to clean the wet well, retrieving items from lower shelves. The motion is in a forward direction between 5 and 65-degrees.
Head/Neck:	Frequency: Duration: Associated Tasks:	3 to 4 hours. Seconds to less than 5 minutes at a time. Utilizing a microscope to observe organisms, performing metal analysis, bioassays, ammonia and oil/grease testing, transferring liquids/samples, reading, writing, operating laboratory equipment.
Wrists:	Dominant Hand: Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks:	2 to 3 hours. Less than 1 to 2 hours. Less than ½ hour. 1 to 2 hours. Seconds to less than 5 minutes at a time. Handling sample containers, office supplies, transferring samples, utilizing laboratory equipment

TWISTING/ROTATING		
Waist:	Frequency: Duration: Description: Associated Tasks:	Not a job requirement.
Head/Neck:	Frequency: Duration: Associated Tasks:	1 to 2 hours. Seconds at a time. Aiding visually, during normal body mechanics to perform laboratory tasks. The motion is center to the right back to center or center to the left back to center less than 45-degrees.
Wrists:	Dominant Hand: Frequency Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks:	Less than 10 minutes to 2 hours. 0 to less than 1 hour. 0 to less than 15 minutes. 0 to less than 1 hour. Seconds to less than 5 minutes at a time. Shaking containers, connecting/disconnecting tubing from equipment, transferring samples to and from containers, flasks, test tubes, screwing or unscrewing sample container caps.

LIFTING/CARRYING		
0 to 10 lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Variety of laboratory tools, sample containers, test tubes, tools, powder samples, brushes, paperwork, writing utensil, glassware, washcloths, telephone handset. 2 to 4 hours. 1 to 2 hours. Less than ½ hour. 2 to 3 hours. 0 to less than 100 feet. Ground to shoulder or above. Handling office supplies, handling and utilizing a variety of laboratory tools, sample containers, test tubes, tools, handles laboratory supplies, utilizing a writing utensil to complete paperwork.
11 to 25 lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Fish tank, sample jugs. 0 to less than 10 times. 0 0 Up to 10 times. 0 to less than 5 feet. Ground to waist level. Retrieving and relocating a fish tank, sample jugs.
26 to 50 lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Not a job requirement.
51 to 75 lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Not a job requirement.
75 to 100 lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Not a job requirement.
100+ lbs.	Objects: Frequency Dominant: Non-Dominant: Bilateral: Distance: Height: Associated Tasks:	Not a job requirement.

HAND DEMANDS		
Simple Grasping	Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks:	2 to 4 hours. 1 to 2 hours. Less than ½ hour. 2 to 3 hours. Seconds to less than 15 minutes at a time. Handling lab tools, opening or closing microwave, handling sample containers, utilizing a telephone handset.
Power Grasping	Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks:	0 to less than 5 minutes. 0 0 0 to less than 5 minutes. Seconds at a time. Retrieving and relocating fish tank, sample jugs, opening or closing the autoclave.
Fine Manipulation	Frequency: Dominant: Non-Dominant: Bilateral: Duration: Associated Tasks:	2 to 4 hours. Less than 1 to 3 hours. Less than 15 minutes. Less than 1 to 3 hours. Seconds to less than 15 minutes at a time. Utilizing a computer keyboard, mouse, writing utensil to complete notes, paperwork, pressing telephone buttons to make outgoing calls, removing or replacing test tube caps, manipulating bolts, nuts, small parts while assembling and disassembling the sampler, utilizing a pipette in conjunction with utilizing the thumb to transfer liquids.

SPECIAL ENVIRONMENT	Indoors, vehicle cab, climate controlled Outdoors, all weather conditions Laboratory setting, working around chemicals, solutions
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MACHINES/TOOLS	Flow metering devices Glassware Sample containers Microwave Computer keyboard Writing utensil Telephone Measuring devices Brushes Electric vibrating plates Fax machine Copy machine Pipette Microscope 10-key calculator Ammonia testing equipment Grease testing equipment PH meter Analytical balances DO meters Drying ovens Autoclave Microscope Screwdrivers Sampler
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Note: The following are not physical requirements of this job: crawling, laying on back/stomach, twisting waist.

ADDITIONAL REQUIREMENTS: Depending on the exposure, the employee is required to wear foot, hand, eye, face, respiratory hearing and head protection equipment.

EMPLOYER COMMENTS:	
This Job Analysis accurately represents the duties of a Laboratory Supervisor to the best of my knowledge.	
EMPLOYER CONTACT NAME:	
EMPLOYER SIGNATURE:	DATE:

EMPLOYEE COMMENTS:	
This Job Analysis accurately represents the duties of a Laboratory Supervisor to the best of my knowledge. I understand that I cannot add hours to the physical demands breakdown if the total would then be greater than the number of hours in an average workday.	
EMPLOYEE NAME:	
EMPLOYEE SIGNATURE:	DATE: