Hydrologic Technician, GS-1316-07

Introduction

This position is located in the XXX Science Center, XXX Section, in XXX (City, State). The section conducts interdisciplinary projects to advance current knowledge of water use and the processes controlling stream water and groundwater. Studies result in interpretative products that can be used for water resources management decision making. Research investigations in this office focus primarily on water quality and hydrology in forested, suburban, and agricultural watersheds. The incumbent of this position provides a wide range of technical support for water quality studies.

Major Duties

1. Performs routine field measurements to determine water quality such as water temperature, specific conductance, epH, dissolved oxygen and alkalinity selecting the appropriate technique, protocol, and equipment. Observes and notes various hydraulic or environmental conditions.

2. Collects and processes a wide variety of samples modifying approaches as necessary in order to ensure the integrity of the data. Performs various field or lab analyses of sample constituents. Prepares representative samples for lab analyses.

3. Computes and checks water-quality monitoring records using basic techniques. Performs routine phases of statistical and technical analysis of the hydrologic data collected.

4. Prepares summaries and basic data reports of results of field activities, including the preparation of materials for publications such as tables of data, maps, and other illustrative material. Documents the procedure used to compute records.

5. Conducts quality assurance review of water-quality records to ensure accuracy, uniformity, and compliance with technical standards.

6. Installs, maintains and services a variety of sensing, recording and communications equipment and instrumentation. Troubleshoots selected hydrologic instrumentation in the office. Maintains repair logs on hydrologic instrumentation. Calibrates meters and analytical equipment. Determines appropriate equipment for field or laboratory activities depending upon data collection needs and field conditions.

7. Operates a government motor vehicle as an incidental driver.

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION (Level 1-4, 550 points)

- Practical knowledge of hydrologic principles, practices, procedures and techniques in addition to the ability to sequentially apply a wide range of standard hydrologic data collection and office computation procedures in order to collect and/or compute and compile hydrologic data.

- Skill in performing standard data compilation and computation activities that include, but are not limited to, applying datum corrections, plotting and analyzing hydrographs, transferring data to maps and reconstructing short periods of inconsistent or missing records.

- Knowledge of computer systems and automated databases in order to enter, transfer, retrieve and manipulate hydrologic data; to operate computerized equipment; to generate a variety of standard reports; and/or respond to routine hydrologic data requests.

- Practical knowledge of electronic technology and equipment mechanics in order to operate, maintain, install, and service a variety of scientific instruments and equipment.

- Knowledge of field and lab safety procedures.

FACTOR 2 - SUPERVISORY CONTROLS (Level 2-3, 275 points)

Works under the general direction of the supervisor or a higher graded employee. Assignments involving prescribed or standard methods are given in terms of objectives to be achieved. The employee uses initiative to independently accomplish such assignments with the supervisor providing assistance in solving unfamiliar technical problems. Methods applied by the technician in performing tasks are not normally reviewed. Completed work is reviewed for accuracy and technical adequacy.

FACTOR 3 - GUIDELINES (Level 3-3, 275 points)

Guidelines include a series of manuals on techniques of water resources investigations (TWRI), WRD Data Reports Preparation Guide, agency procedural directives, oral instructions, standard accepted recording forms, protocols and previously established methods. The employee locates and selects the appropriate guideline or procedure; however, the guidelines may not be completely applicable to the assignment or contain gaps in specificity. The employee independently resolves technical problems by deviating from or adapting guides. The technician formulates and recommends revised approaches and procedures. Situations involving significant deviation from established guidelines are generally discussed with the supervisor for additional guidance.

FACTOR 4 - COMPLEXITY (Level 4-3, 150 points)

Work consists of the full range of data collection and computation duties that typically involve the application of differing and unrelated technical approaches and procedures to complete an assignment. The work requires the employee to consider and select from several possible courses of action, methods, and techniques. The technician displays initiative, resourcefulness, and judgment to adjust work methods and procedures to accommodate unusual conditions found at the worksite and to identify and resolve anomalies or inconsistencies in data.

FACTOR 5 - SCOPE AND EFFECT (Level 5-3, 150 points)

The purpose of the work is to perform conventional assignments involving the collection, computation and compilation of hydrologic data that affect the understanding of the hydrologic environment and to disseminate hydrologic data through reports and other mediums. Work efforts have an impact on the accuracy and adequacy of field, office and/or laboratory processes and methods used, the data and resulting reports, and/or data-resource management decisions.

FACTOR 6 - PERSONAL CONTACTS (Level 6-2, 25 points)

Primary contacts are with personnel within the science center. On occasion, contacts may be made with personnel from higher level organizations, State or local governments, or other Federal agencies. Contacts with the general public occur during the performance of routine field or office activities.

FACTOR 7 - PURPOSE OF CONTACTS (Level 7-2, 50 points)

Contacts are chiefly to clarify or exchange information, provide advice, plan or coordinate work activities, resolve technical problems, and provide technical assistance or training.

FACTOR 8 - PHYSICAL DEMANDS (Level 8-2, 20 points)

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, and recurring lifting of moderately heavy items weighing less 50 pounds.

FACTOR 9 - WORK ENVIRONMENT (Level 9-2, 20 points)

The work is performed in an office, laboratory and field setting. The regularly involves moderate risks or discomforts associated with visiting field sites with limited access, under adverse weather or flooding conditions, or exposure to irritant or toxic chemicals. Work may require the use of special clothing or gear such as masks, coats, boots, goggles, respirators, or life jackets.

TOTAL POINTS: 1515
GRADE CONVERSION: GS-7
GS-1300T, JFS for Technical Work in the Physical Sciences Group 08/02

CLASSIFICATION STANDARD(S) USED - GS-1300T, Job Family Standard for Technical Work in the Physical Sciences