

## GEOLOGIST

### General Statement of Duties and Responsibilities

This class of positions encompasses professional and/or supervisory responsibilities of various complexities involved in the performance of work in geology. There are two Assignment Levels within this class of positions. All personnel perform related work and operate motor vehicles to visit sites. The following are typical assignments within this class of positions.

### Assignment Level I

Under supervision, performs professional work in geology; may supervise subordinates.

### Examples of Typical Tasks

During the first year, receives training in and assists in performing tasks such as those described below. After satisfactory completion of training, performs tasks such as the following:

Conducts geological studies and investigations and subsurface exploratory work.

Examines, classifies and evaluates geologic materials.

Makes detailed and refined examinations of soil samples and rocks; determines constituent elements, characteristics, and structural features.

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GEOLOGIST (continued)

Assignment Level I (continued)

Examples of Typical Tasks (continued)

Interprets results of geologic testing.

Researches and reports on geologic history and characteristics of local area geography, noting engineering significance.

Draws and supervises the drawing of geological maps, topographical maps and cross sections; prepares record of boring reports and other geologic representations.

Supervises the inspection of, and inspects the making of borings to obtain soil samples (both dry and undisturbed), rock cores, ground water elevations, etc.

Monitors and tracks the performance of contractors during subsurface operations, boring operations or in the delivery, placement and testing of cover material.

Evaluates the geologic integrity and recommends safety requirements for underground tunnels, shafts, test pits, and other project sites. Classifies sample materials and compares them to Building Code specifications or other standards.

Surveys proposed project sites.

Views and interprets topographical maps, contract specifications, job plans and blue prints.

Prepares and maintains reports and records of information.

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GEOLOGIST (continued)

Assignment Level II

Under general supervision, performs difficult and responsible professional scientific work in geology; utilizes considerable responsibility and latitude in the exercise of independent judgment and decision; may supervise subordinates.

Examples of Typical Tasks

Conducts and/or supervises the making of geological studies and investigations and subsurface exploratory work.

Conducts and/or supervises the making of mineralogical and petrological studies of rock and soils, rock and soil profiles, strata contour maps, isopachs, etc.

Advises and assists soils engineers in soils laboratory and field tests.

Prepares program for boring, ground water, geophysical, and other geological surveys.

Prepares technical ground water, geophysical, and other geological surveys.

Prepares technical reports and performs related technical and professional work as required.

Trains subordinate personnel.

Maintains geologic library.

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GEOLOGIST (continued)Assignment Level II (continued)Examples of Typical Tasks (continued)

Provides information related to department projects.

Assists in the preparation of contracts.

Prepares estimates of project payments.

Qualification RequirementsAssignment Level I

- A. A baccalaureate degree from an accredited college with a major in geology, engineering, earth sciences, environmental sciences, or a closely related field, including or supplemented by 24 semester credits in any of the following areas: rock and soil mechanics; structural geology; soils; sedimentation; petrology; hydrology; hydrogeology; geomorphology; subsurface explorations; mining; engineering; mapping; surveying; site investigations; geologic field work; or closely related areas; and
- B. At least one course involving geologic field work or three months of satisfactory, full-time professional geologic field experience obtained during the course of, or after completing, the baccalaureate education.

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GEOLOGIST (continued)Qualification Requirements (continued)Assignment Level I (continued)License Requirement

A Motor Vehicle Driver License valid in the State of New York is required. This license must be maintained throughout the duration of employment.

Special Notes:

1. Employees hired as Geologist - Assignment Level I must satisfactorily complete a probationary period of at least 24 months. This probationary period may be extended in accordance with the Personnel Rules and Regulations of the City of New York. Employment may be terminated at any time during the probationary period. Upon satisfactory completion of one year of training in beginning level professional work in geology, employees will be assigned to perform the full range of work in geology of moderate difficulty and responsibility appropriate to Assignment Level I and will receive the "after one year in title" salary rate.
2. Employees with one year of satisfactory, post-baccalaureate, full-time professional experience in geology, engineering, earth sciences, environmental sciences, or a closely related field may be hired directly at the "after one year in title" salary rate, at the discretion of the hiring agency.

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GEOLOGIST (continued)Qualification Requirements (continued)Assignment Level II

- A. To be eligible for placement in Assignment Level II, individuals must have, after meeting the minimum requirements described in Assignment Level I, at least two years of satisfactory service as a Geologist AL I with the City of New York; or
- B. At least three years of satisfactory, full-time professional experience in geology, engineering, earth sciences, environmental sciences, or a closely related field. One year of this experience must include the provision of geologic consultation or the supervision or performance monitoring of persons involved in geologic activity; or
- C. A satisfactory equivalent combination of education and experience. A masters degree from an accredited college with a major in one of the fields listed in "Assignment Level I - Qualification Requirement A" above may be substituted for two years of the AL II professional experience. A masters degree from an accredited college in management, public administration, business administration, or a closely related field may be substituted for the one year of consultative or supervisory experience described above.

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GEOLOGIST (continued)Qualification Requirements (continued)Qualification Requirements for Tunnel and Shaft Construction PositionsAssignment Level I

In addition to meeting the above requirements for Assignment Level I, candidates for Assignment Level I tunnel and shaft construction positions must have six months of full-time professional experience in each of two of the following areas: rock and soil classification; mapping of underground joint sets and faults; or analysis of vibration monitoring to protect existing structures. This experience may be substituted for the experience described in the "Special Note 2" above.

Assignment Level II

In addition to meeting the requirements for tunnel and shaft construction positions in AL I, candidates for tunnel and shaft construction positions in AL II must have six months of experience in each of three of the following areas: interpretation of geologic data for recommendations of shaft and tunnel support systems; analysis of the engineering behavior of jointed rock in response to tunneling and shaft sinking; writing of specifications for geologic exploration contracts; or preparation of payment estimates for exploratory contract work. This experience may be substituted for up to two years of the non-consultative experience described in "Qualification Requirements for AL II" above.

Direct Lines of Promotion

From: None.

To: None.