



GEOTECHNICAL DRILLING SPECIALIST 2

4241

GENERAL DESCRIPTION OF CLASS

The GEOTECHNICAL DRILLING SPECIALIST 2 gathers geological data required for roadway construction and improvement projects. Employees operate heavy drilling equipment that obtains subsurface soil and rock samples, collect data from geological instruments, and do on-site testing of materials. Employees independently plan and assign the work of a crew, guide members in resolving the more complex work problems, and train employees in drilling, sampling and material testing techniques.

DISTINGUISHING FEATURES

This is the second level of a two-level series. The responsibility for planning and prioritizing the work, guiding and training employees, using extensive knowledge of geotechnical drilling operations, and the requirement to possess a valid Oregon Monitoring Well Constructor's License distinguishes this class from the lower level.

DUTIES AND RESPONSIBILITIES

The duties listed are not inclusive, and are characteristic of the type and level of work associated with this class. Individual positions may do all or some combination of the duties listed as well as other related duties.

1. Exploration

Operate a variety of specialized drilling and testing equipment such as, truck and track mounted drills. Coordinate drill site preparation activities. Oversee the placement of rock, culverts or other drainage facilities for building access roads. Read location maps to locate job sites. Clear job sites, locate and clear safety hazards. Plan traffic control. Obtain test borings by operating heavy drill equipment. Record data and notes of drilling result. Oversee the transportation of equipment to and from drill sites by inspecting for proper loading. Install or guide others in the installation and monitoring of geological test instruments. Assemble drill barge and transport drilling equipment to water locations via boats and tugs to drill test borings. Construct and abandon test borings and monitor wells in conformance with Oregon State law.

2. Materials Testing

Test soil and rock samples to decide the engineering or contaminant properties of earth materials. Verify sample and test quality. Record sampling conditions, test result and samples collected to logs. Record test borings and other field inquiries. Report information regarding sample rates, earth material conditions, material contamination and other engineering or contaminant properties of subsurface materials. Obtain and record ground water and landslide movement data from monitoring equipment.

3. Hazardous Materials

Decommission or supervise others who decommission underground storage tanks, remove and dispose of contaminated soil and water. Design and construct monitoring wells and collect samples to test for groundwater contamination. Sample and test earth materials according to health and safety guidelines and procedures.

4. Technical Lead and Administrative Work

Coordinate work activities and train employees in drilling, sampling and testing techniques. Plan and assign the daily work. Give guidance on work problems. Assist higher-level staff to prepare and decide the type of test and data needed. Prepare reports of daily work activities, safety meetings, and equipment service and expense summaries. Contact utility staff to locate underground and overhead utilities. Prepare reports for performance measurement.

RELATIONSHIPS WITH OTHERS

Employees in this class have frequent contact with higher-level managers to review work progress and plan future activities. As material conditions are encountered, employees have regular contact in person or by telephone with geologists and engineers regarding sample test results, sample quality, and modification of procedures. Employees have frequent contact with roadway maintenance personnel regarding work activities, access roads, and the movement of equipment. They occasionally have contact with material suppliers and equipment shops to order materials and schedule equipment repair.

SUPERVISION RECEIVED

The Geotechnical Drilling Specialist 2 receives general supervision and works independently in the field. Employees decide the most effective way to carry out work assignments, assign work and allocate resources. The work is reviewed periodically for overall efficiency of work and proper use of resources.

GENERAL INFORMATION

Positions in this class require extensive overnight travel. Work sites are located throughout the State and require the willingness to work year-round, out-of-doors in the environment associated with the job. This includes harsh weather conditions, strenuous physical activity, heavy motor traffic, working at heights, contact with hazardous materials, actively moving rock and earth, and night work. Positions in this class require a valid Oregon driver's license with the appropriate class rating to drive drill trucks and associated vehicles, and a Monitoring Well Constructor's License.

KNOWLEDGE AND SKILLS (KS)**Extensive knowledge of:**

Practices of drill operations, sampling and testing relating to engineering geology applications.
Methods of obtaining soil and rock samples in difficult drilling situations.
State laws and guidelines pertaining to construction and abandonment of test borings and monitoring wells.

General knowledge of:

Work safety procedures typical to heavy drilling operations.
Traffic control procedures such as, highway signing, flagging and coning to work safely in busy motorized traffic.
Equipment maintenance for the type of equipment used in heavy drilling operations.
State laws and guidelines of motorized equipment operation.
Soil and rock classifications.
In situ sampling and testing techniques.

Skill to:

Record drilling operations and observations.
Communicate effectively, verbally and in writing to exchange information.
Operate heavy drilling equipment and modify or improve techniques for the drilling situation.

NOTE: The KNOWLEDGE and SKILLS are required for initial consideration. Some duties performed by positions in this class may require different KS's. No attempt is made to describe every KS required for **all** positions in this class. Additional KS requirements will be explained on the recruiting announcement.

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