



STATE OF ALASKA
COMPETENCY SPECIFICATION

Occupational Group: LABOR TRADES, AND CRAFTS

CAREER AREA:

Driller

9551-54

9551-53

Definition: Operates equipment used for soil and rock sampling during geological investigation; mobilizes and maintains drill rigs and associated tools and equipment.

Levels:

Competencies are the required knowledge, skills, abilities and work behavior demonstrated and required for the on-going essential functions of the job. Possession of competencies alone *will not* automatically advance an incumbent; rather the incumbent must demonstrate and use the competency in the on-going performance of *assigned* duties.

Sub-journey: Worker provides assistance to others by performing the more routine, non-specialized and repetitive tasks that do not require the more specialized skills. Basic tasks are performed independently and those of progressive difficulty are performed under direct supervision until proficiency is demonstrated. The designation of Sub-journey does not infer that the work must be always in the company of another and/or higher level employee.

9551-54 Performs routine support functions where actions are self-evident and performs specific assignments on complex equipment as an assistant under directions and/or as a trainee. Work requires familiarity with equipment and procedures.

Journey: Worker is fully proficient. Work is performed independently, using standard methods and techniques, and consists of assignments that are typical of the occupational field. Journey workers can use a variety of interrelated skills to independently complete work that conforms to industry standards. The work may require proof of competence, training or certification.

9551- 53 Operates specialized equipment for geologic sampling including the operation, maintenance of equipment and associated tools. Assesses nature of drilling or equipment problems, and responds with remedies, decisions, actions or recommendations in the field.

Essential Core Competencies: “Common or typical” to the career area and required for all levels as appropriate to the specific position. *These are included in the position description and performance evaluation review process.*

Driller core

Knowledge of:

- equipment functions
- equipment use appropriate to specific conditions and assignment
- appropriate use of construction, maintenance, agricultural or other chemicals and materials
- hazardous materials regulations
- safety regulations and practices related to equipment use and operation
- mathematics
- basic metric units and conversions
- basic concepts of volume, ratio and proportion
- personal and site safety practices and procedures encountered in the work
- occupational hazards and safety practices
- basic equipment operation and maintenance

Ability to:

- set up the operation of equipment
- proficiently and safely operate equipment
- maintain and communicate situation awareness
- take appropriate action to prevent damage
- perform equipment safety checks and identify inspection points
- observe the job environment and conditions
- read and understand regulations related to the work
- follow instructions
- work cooperatively and effectively as a team member
- react effectively in emergency and disaster situations
- read and understand technical manuals and definitions
- prepare accurate and legible notes, messages, or test records
- perform routine activities producing repeatable results
- care for the tools and equipment in safe manner
- learn and apply principles, techniques and processes applicable to the job
- perform physically demanding work

Skill in:

- operation of specific equipment

Essential Technical Competencies:

These are included in the position description and performance evaluation review process

SUB-JOURNEY level workers will be required to meet the following

TO:

- have the aptitude to develop, practice and use needed skills and work behaviors
- apply verbal and written instructions to individual and grouped tasks
- perform routine tasks with consistent results
- recognize situations requiring additional supervision or instruction in order to request assistance
- apply acquired skills, knowledge and abilities to new tasks
- learn proper usage and care of tools and equipment of the trade or craft

Driller Sub-journey 9551-54
in addition

Knowledge of:

- occupational hazards and safety practices
- basic equipment operation and maintenance

Ability to:

- respond to sound and vibration signals of the equipment
- report punctually with appropriate attire and gear
- repair drilling equipment in the field
- work well with a variety of people on a crew for long duration and/or in remote locations

EXAMPLES OF DUTIES:

Determines equipment, tools, bit types and diameters appropriate to basic assignments.

Attaches and operates rotary drag bits, rock bits, testing equipment, sandlines and hydraulic jacks under direction.

Attaches, operates and disconnects core bits, core barrels, augers, and large earth boring tools and sampling tools following procedures and instructions. Cares for and preserves equipment. Services equipment.

Learns to determine appropriate rates of feed and torsion capacity;

Services, adjusts, dismantles and reassembles drilling equipment. Operates backhoes, dozers and other tracked and wheeled vehicles.

Assists in test pit excavations, rotary drilling of deep holes and soil sampling.

JOURNEY level workers will be required to meet the following

TO:

- have the required skills to handle difficult problems encountered
- have comprehensive knowledge of the subject or occupational area
- use judgment in determining actions

- exercise independence in determining actions
- plan and lay out work (i.e. determine how to do one's own work)
- make appropriate choice among alternatives
- complete work with only limited instruction and/or little or no advice
- proceed with work without having results or products generally reviewed in progress

Driller Journey 9551-53
in addition

Knowledge of:

- geotechnical and construction materials investigation
- equipment capabilities in all terrain and weather conditions
- hazardous materials used or encountered
- standard methods, practices, tools and equipment
- mechanics and operation of drilling equipment
- materials and inventory control
- traffic control requirements

Ability to:

- plan sequence of operations using proper tools and equipment
- adjust equipment in response to pressure, volume and velocity changes
- recognize change in drilled materials
- recognize and adjust for poor sample recovery and contaminated soils
- make adjustments to test methods in the field
- evaluate field conditions to determine equipment, tools and methods to accomplish assignment
- read and interpret procedures, standards and blueprints

EXAMPLES OF DUTIES:

Determines equipment, tools, bit types and diameters appropriate to all drilling circumstances.

Operates the standard, heavy core drilling and soil sampling equipment and drives a tracked or wheeled vehicle to transport drilling equipment.

Mobilizes and maintains drill rigs and associated tools and equipment.

Makes adjustments in the field as needed to ensure successful completion of assignments.

Technical Certifications:

CORE:

- Alaska Drivers License
- First aid and CPR card
- CDL Class A with air brake, hazardous materials and tank vehicle endorsement

Environmental Conditions and Physical Requirements:

Exposure to

- inclement weather conditions
- hazardous paints, chemicals, pesticides
- moving vehicles, equipment, machinery and tools
- insects and wildlife
- noise, dust, mud, and fumes
- water, ice and off-shore structures
- medium to heavy physical exertion
- heights, trenches and steep slopes

Physical stamina to

- stand and walk for long periods
- lift 100 lb. regularly
- walk and carry loads over rough terrain for long periods

Equipment:

DRILLING

- 140-340 pound safety hammers
- Back hoes up to track excavators
- Core/auger drills (CME 45 to CME 75; CME 850; Mobil B-50, B-38)
- Dozers
- Nodwell and/or Bombardier carrier
- Portable exploration drills
- Sampling tools

VEHICLES / MOTORIZED

- dump truck
- four-wheelers
- pick up trucks
- outboard motor boats
- snowmobiles
- tractor-trailer

MISCELLANEOUS

- Arc and Gas welding
- Clearing tools:
 - ax
 - chainsaw
 - machete
- Hand tools
- Mechanics tools
- Power tools
- Radio

OTHER:

Orig: LTC study 07/01/99

Occupational Group: LABOR ,TRADES, AND CRAFTS
CAREER AREA: *Driller*

9551

Previous history: P9373-53; P9374-54; P9375-55