

Missouri Department of Transportation

Code: R05459

Title: Geologist

Exemption Status: Exempt

Grade: 11

Job Description

Effective Date	06-01-2025
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Replaces (Effective Date)	08-16-2023
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General Summary	The geologist gives technical guidance to employees performing geotechnical investigations, aggregate inspection; serves as a technical consultant to a district on materials and geotechnical issues supporting preliminary engineering and roadway construction. Responsibilities are performed under general supervision.
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Minimum/Required Qualifications	<p>Bachelor's Degree in geology or in geological engineering (or civil engineering with a geotechnical emphasis) from an ABET-accredited college or university curriculum.</p> <p>Licensed as a Registered Geologist in the State of Missouri.</p> <p>Six years of experience in geology or geotechnical work related to highway or transportation engineering.</p> <p>OSHA 10-Hour Certification required within 90 days.</p> <p>Successful completion of a work simulation examination and a medical-physical examination.</p>
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Supervisory Responsibilities	None
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Location	Central and District Offices - Construction and Materials
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**Special Working
Conditions/Job
Characteristics**

Job may require regular, statewide, overnight travel.

Job requires exposure to moderately adverse and undesirable environmental conditions.

A postsecondary degree is the best measure to ensure candidates possess required engineering knowledge, including in applied physics and mathematics, drafting, engineering processes and procedures, project management, industry ethical standards, and analyzing and modeling data.

Examples of Work

- (1) Provides technical guidance for the inspection of aggregates.
- (2) Conducts or oversees field investigations including preliminary geotechnical investigations, borrow site investigations, roadway condition investigations, and quarry ledge stone investigations.
- (3) Conducts preliminary geotechnical surveys and provides design and construction project recommendations.
- (4) Investigates geotechnical problems such as bridge/culvert foundations, landslides, erosion/drainage, subgrade instability and underground mines and determines corrective or preventive action.
- (5) Identifies, classifies, samples, and reports new ledge stone sources for evaluation of aggregate source quality.
- (6) Prepares, writes, reviews, signs and seals geotechnical reports, quarry columnar sections and other technical documents.
- (7) Liaisons with consultants and producers to ensure geotechnical work complies with standard practices, policies, and procedures; liaisons with the Central Office regarding scheduling surveys, securing access to private property, traffic control, and utility clearance for structures.
- (8) Reviews contracts and conceptual, preliminary, and final design plans.
- (9) Provides technical supervision for drilling operations for geotechnical surveys.
- (10) Serves as an expert witness for the department on lawsuits involving geotechnical issues.
- (11) Attends district project core teams, including planning, scoping, review, and final field checks.
- (12) May serve as the department's radiation safety officer and maintain the department's Nuclear Regulatory Commission materials license, including ensuring license requirements are met.
- (13) Performs other responsibilities as required or assigned.