

POSITION DESCRIPTION						
1. Position Number			2. Explanation (show any positions replaced)			
3. Reason for Submission <input type="checkbox"/> New <input type="checkbox"/> Redescription <input type="checkbox"/> Reestablishment <input type="checkbox"/> Standardized PD <input type="checkbox"/> Other						
4. Service <input type="checkbox"/> HQ <input type="checkbox"/> Field	5. Subject to Identical Addition (IA) Action <input type="checkbox"/> Yes (multiple use) <input type="checkbox"/> No (single incumbent)					
6. Position Specifications Subject to Random Drug Testing <input type="checkbox"/> Yes <input type="checkbox"/> No Subject to Medical Standards/Surveillance <input type="checkbox"/> Yes <input type="checkbox"/> No Telework Suitable <input type="checkbox"/> Yes <input type="checkbox"/> No Fire Position <input type="checkbox"/> Yes <input type="checkbox"/> No Law Enforcement Position <input type="checkbox"/> Yes <input type="checkbox"/> No		7. Financial Statement Required <input type="checkbox"/> Executive Personnel-OGE-278 <input type="checkbox"/> Employment and Financial Interest-OGE-450 <input type="checkbox"/> None required		10. Position Sensitivity and Risk Designation <u>Non-Sensitive</u> <input type="checkbox"/> Non-Sensitive: Low-Risk <u>Public Trust</u> <input type="checkbox"/> Non-Sensitive: Moderate-Risk <input type="checkbox"/> Non-Sensitive: High-Risk <u>National Security</u> <input type="checkbox"/> Noncritical-Sensitive: Moderate-Risk <input type="checkbox"/> Noncritical-Sensitive: High-Risk <input type="checkbox"/> Critical-Sensitive: High-Risk <input type="checkbox"/> Special Sensitive: High-Risk		
		8. Miscellaneous Functional Code: -- BUS: --	9. Full Performance Level Pay Plan: Grade:			
11. Position is <input type="checkbox"/> 2-Supervisory <input type="checkbox"/> 4-Supervisor (CSRA) <input type="checkbox"/> 5-Management Official <input type="checkbox"/> 6-Leader: Type I <input type="checkbox"/> 7-Leader: Type II <input type="checkbox"/> 8-Non-Supervisory		12. Position Status <input type="checkbox"/> Competitive <input type="checkbox"/> SES <input type="checkbox"/> Excepted (specify in remarks) <input type="checkbox"/> SL/ST		15. Fair Labor Standards Act <input type="checkbox"/> Exempt <input type="checkbox"/> Nonexempt		
	13. Duty Station	14. Employing Office Location	16. Cybersecurity Code #1: #2: -- #3: --			
18. Classified/Graded by	Official Title of Position		Pay Plan	Occupational Code	Grade	Initial Date
a. Department, Bureau, or Office						
b. Second Level Review			--		--	
19. Organizational Title of Position (if different from, or in addition to, official title)			20. Name of Employee (if vacant, specify)			
21. Department, Agency, or Establishment U.S. Department of the Interior			c. Third Subdivision			
a. Bureau/First Subdivision			d. Fourth Subdivision			
b. Second Subdivision			e. Fifth Subdivision			
22. Supervisory Certification. I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes relating to, but not limited to: FLSA determinations; position sensitivity and requirements; and appointment/payment of public funds. False or misleading statements may constitute violations of such statutes or their implementing regulations.						
a. Typed Name and Title of Immediate Supervisor			b. Typed Name and Title of Higher-Level Supervisor or Manager (optional)			
Signature		Date	Signature		Date	
23. Classification/Job Grading Certification. I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.			24. Position Classification Standards Used in Classifying/Grading Position			
Typed Name and Title of Official Taking Action						
Signature		Date				
25. Position Review	Initials	Date	Initials	Date	Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.	
a. Supervisor						
b. Classifier						
26. Remarks						

DOI Standard PD
PD# DN01600
Developmental Position

Classification: Geologist, GS-1350-07

Introduction

This position performs advanced trainee assignments in an operating subdivision of a Bureau/Office. Position performs a range of development duties supporting investigations and scientific projects and programs. The position participates in a range of geologic studies with clear precedents designed to orient the scientist to professional work in geology and in one or more related physical sciences as is appropriate to the needs of the organization.

Major Duties (Accounts for the minimum of 25% of work time)

Methods and Procedures: Applies conventional methods to the preparation and analysis of field/remote sensing observations and/or laboratory samples. Methods employed are designed to orient the scientist to a field and/or laboratory method used in the area of specialization. Methods employed are standard for the profession.

Data Collection/Analysis: The scientist applies a range of standard geologic and/or geochemical techniques to acquire data and samples. Makes geological observations, computations, and measurements. Areas of investigation vary depending on particular assignment; examples may include geomorphology, paleo seismology, planetary sciences, paleontology, paleoclimatology, sedimentology, limnology, volcanology, resource assessments, geologic mapping, structural assessments and specifications, and safety assessments related to new or existing structures such as dams, depth of water tables and other types of conditions which impact projects.

Geologic Interpretation: Analyzes and interprets geological and geophysical data and carries out investigations in accordance with instructions from a senior scientist or project chief. Investigations may involve but are not limited to: reservoir identification and classification, well log analysis, seismic and other geophysical data interpretation, surficial and subsurface mapping, developing geologic cross sections, reserves and resource estimation, conservation of resources, lease sale evaluations for fair market value determination, and discharge analyses. Uses data interpretation software and various PC-based software applications in order to adequately evaluate geologic-related projects, and for the purpose of inputting, displaying, and organizing geological, geochemical, geophysical and/or engineering data for retrieval and evaluation.

Reporting/Documenting: Contributes to technically authoritative reports on geologic and related studies that convey a range of standard geologic, geomorphic, geochemical, biological, and/or hydrologic information. Audiences for reports may be academic researchers, government entities, commercial concerns, cooperating entities, or other users of government data and reports. Reports typically contribute to broader investigations that may form the basis for bureau or cooperator decision-making efforts. May assist in the development or editing of geologic maps for digital or print publication.

Communication of Findings: Communicates findings in a variety of formats and settings. May make presentations to officials in circumstances where technical information must be presented in a way that is comprehensible to non-technical personnel. Topics communicated are typically technical but may also be related to permitting and/or regulatory enforcement.

Other Duties (Cannot account for more than 75% of work time)

- **Compliance:** Provides support in connection with regulatory program oversight and resolution of geology related issues as they are encountered. This may include participating in review of lands unsuitable for mining petitions
- **Database Management:** Uses relational databases to maintain geologic data for conducting operational and planning analyses. Participates in geologic data collection systems directly and/or in coordination with other government agencies and non-Federal sources. Ensures necessary data is collected, transmitted, downloaded, decoded, and received for its intended purpose.
- **Participation in Conferences/Representation at Technical Meetings:** Participates on technical work groups or teams. May collaborate on teams external to the immediate organization.

Performs other duties as assigned.

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION

FL1—6 950 points

Position requires knowledge of geology and related physical sciences such as geophysics, oceanography, physics, volcanology, hydrology, or chemistry to conduct, interpret, and document complex but conventional scientific investigations. Areas of specialization may include geomorphology; structural geology; sedimentary, igneous or metamorphic petrology; planetary geology; economic or mining geology; engineering geology; paleoclimatology; paleontology; geochemistry; geochronology; soil science; volcanology; geodesy; and resource assessments for petroleum, geothermal, mineral exploration, and engineering geologic analysis of infrastructure and geotechnical investigations.

Knowledge of a range of geologic concepts, principles, and exploration methods applicable to investigate and characterize geologic conditions associated with routine problems, that may involve a range of standard geologic, engineering, hydrologic, biologic, chemical, man-made or other environmental conditions. Problems encountered demand skills sufficient to apply standard practices, approaches, and techniques. For positions responsible for construction support, knowledge of documentation of geologic conditions related to construction activities and foundation treatment if required.

Knowledge of data collection methods, data management, computer sciences and programming language(s) as they relate to the field of geology. Skill in computer systems and hardware platforms, sufficient to interface field, remote sensing and laboratory instrumentation with computers for data acquisition and processing is required. Knowledge of mathematics, statistical sampling and statistical modeling techniques applied to geophysical, physical, and/or geochemical processes. Knowledge of risk assessments techniques applied to one or more areas of geology, which may include methods of assessing economic risk, environmental risk, dam safety risk.

Knowledge of geological, geochemical, engineering geology, and instrumentation, electronics, and communications as related to the acquisition, recording, transmission, storage and analysis of geological data.

Knowledge of a range of data analysis methods applied to geosciences, incorporating such techniques as remote sensing, field mapping and modeling, geochronology, coherence filtering, depth migration, and geochemical characterization. Ability to apply standard statistical models to large data sets and analyze data consistent with scientific and statistical principles.

FACTOR 2 - SUPERVISORY CONTROLS**FL2-2 125 points**

The supervisor or a designated employee instructs the scientist on the objectives, scope, limitations, expectations, and deadlines for assignments. Instructions are specific as to work methods and priorities.

The employee works independently but within the strict framework outlined. Any circumstances that are not covered by the instructions are referred to the supervisor for guidance.

Work is reviewed for accuracy of methods, conformance with prescribed procedures and special instructions, and for soundness of conclusions. More difficult or novel assignments are reviewed in detail.

FACTOR 3 – GUIDELINES**FL3-2 125 points**

Guidelines are readily available and typically directly applicable to assignments. Precedents are clear and provide guidance as to techniques and methods to employ.

The scientist uses judgment in choosing which guidelines are most applicable to parts of the assignment and refers any need for deviation from available guidelines to the supervisor or designated senior staff.

FACTOR 4 – COMPLEXITY**FL4-3 150 points**

Work consists of a range of duties requiring the employee to apply different, unrelated processes, methods, technologies, and analytical techniques to a range of complex, standard geological problems or investigations.

The decision regarding what needs to be done requires analysis of the issues involved in the assignment. The employee must select an appropriate course of action from many available alternatives.

The scientist applies versatility and judgment to identify and interpret conditions, understand interrelationships between different elements of the investigation or project, and evaluate the effectiveness of proposed plans of action.

FACTOR 5 - SCOPE AND EFFECT**FL5-2 75 points**

Work involves application of specific standard methods and techniques to segments of a larger investigation or project.

The work assists other scientists, engineers, or management staff by relieving them of detailed, routine work and contributes to the timeliness, acceptability, and accuracy of products and/or services of the work unit.

FACTOR 6 & 7 – NATURE AND PURPOSE OF CONTACTS**FL6-2 & 7-2 75 points**

Contacts are with technical, administrative, and scientific personnel within and outside the immediate organization. Positions involved in disaster response may have contact with emergency responders and land managers. Position may require contact with the media or general public in emergency response situations.

The purpose of contacts is to provide technical direction and coordination of work related to projects, monitoring networks, and geosciences investigations. Contacts are typically cooperative and working toward mutual goals.

FACTOR 8 - PHYSICAL DEMANDS**FL8-1 or 8-2 5 or 20 points**

8-1 Some work of the position takes place mostly in an office or laboratory setting. No special physical effort is required.

OR

8-2 During emergency response periods, training of personnel on new equipment, or field work, the scientist may be expected to hike distances of several kilometers over uneven terrain while carrying equipment. Field work may require working in remote field sites with limited to no services.

Field work may require the use of proper personal protective gear, working in dusty, hot, humid, and extreme cold environments, occasional off-road driving of 4-wheel drive vehicles, traveling to remote field sites in helicopters or small fixed wing planes, and/or boats. Lifting of equipment and objects weighing up to 50 pounds may be necessary.

FACTOR 9 - WORK ENVIRONMENT**FL9-1 or 9-2 5 or 20 points**

9-1 Some work takes place in office or laboratory settings with adequate heat, light, and ventilation. Office conditions do not require special safety precautions; field conditions may include extreme heat or cold, rain or snow, and hazardous conditions such as exposure to extreme temperature, noxious or toxic gasses, ice or flooding.

OR

9-2 Field work may involve encounters with dangerous fauna and flora, and other wilderness dangers. International field work may be conducted in culturally hostile areas.

Geology position with duties that involve subsurface investigation require geologists to work near drill rigs and heavy equipment. Geology positions with duties that involve construction support require geologists to work near heavy equipment and construction hazards. Some work is carried out in proximity to explosives.

Total Points and Grade Conversion

Total Points = 1510 to 1540

Point Range = 1355-1600

Grade = GS-7

EVALUATION STATEMENT

STANDARDS APPLIED

Job Family Standard (JFS) for Professional Work in the Physical Science Group, GS-1300 December 1997; JFS for Work in the Engineering and Architecture Group, 0800, November 2008; Introduction to the Position Classification Standards, revised 8/09

SERIES AND TITLE DETERMINATION

The 1300 JFS defines the Geologist series as work requiring application of knowledge of the principles and techniques of geology and related sciences in the investigation, measurement, analysis, evaluation, and interpretation of geologic data, and chemical, biological, and physical phenomena related to the structure, composition, and physical properties of the earth and its atmosphere. Like work described in the standard, positions covered by this standard PD perform a broad range of geological studies and provide technical review and oversight of tasks or programs related to sedimentary, metamorphic, and (or) igneous petrography, geology, mineralogy, structural and framework geology, resources assessments and other areas related to physical properties of the earth or other planets. The title for such positions is Geologist.

GRADE LEVEL DETERMINATION

The 1300 JFS is a narrative standard. When applying narrative standards each position is placed at the grade with the descriptive material that best represents the overall work of the position.

The GS-05 grade level is the level of a basic trainee in professional positions. At this level, trainees receive assignments that consist of specific, well defined tasks that typically are designed to orient them to the professional work of the organization. At this grade, employees work in strict adherence to specific, detailed guidelines and refer deviations to the supervisor for authorization. For both one-of-a kind and repetitive tasks, these employees receive clear, detailed, and specific instructions. The employee receives explicit on-the-job training in the functions and operations of the organization. Work of this position exceeds the GS-05 level.

GS-07 is the grade for advanced trainee positions in physical science professions. At this level, trainees perform a variety of technical tasks, such as selecting samples, interpolating missing data, uncovering clear discrepancies, solving minor problems, and performing scientific analyses in support of projects assigned to higher level scientists. Advanced trainees receive assignments in terms of general instructions regarding work to be accomplished, quality and quantity expected, limitations, and suggested approaches. Work of this position is consistent with the advanced trainee GS-07 level.

Work does not reach the GS-09 level, which is the first full professional level in the 1350 Geology series. The most obvious GS-9 work assignment is independent responsibility for applying established technology in routine ways to well-defined, moderate sized physical science projects, but GS-9's might also work in support of larger projects using less established technology. GS-9 scientists plan and carry out routine work. Since assignment are closely controlled as to tasks, methods, and expectations, work of this position does not meet the GS-09 level.

Note: The 1300 JFS does not provided detailed descriptions and illustrations in the field of geology that fit many aspects of the work covered by this PD. As such, the 0800 JFS grading criteria was used to confirm grade level. The score derived from application of the 0800 JFS ranges from 1510 to 1540 which equates to the GS-07 level on the grade conversion table.