

## Minerals and Geology

**Goals:** To provide for environmentally sound mineral exploration, development, and reclamation in areas open to mineral entry and in areas with valid existing rights that are otherwise closed to mineral entry. Encourage prospecting, exploration, development, mining, and processing of locatable minerals in areas with the highest potential for mineral development. Insure that minerals are developed in an environmentally sensitive manner, and that other high-valued resources are considered when mineral developments occur. Seek withdrawal from mineral entry of specific locations where mineral development may not meet land use designation objectives.

**Objective:** Implement the Minerals and Geology Standards and Guidelines.

**Background:** A wide range of mineral resources and deposit types occur within the boundaries of the Tongass National Forest. Examples of some include, but are not limited to, gold, silver, molybdenum, and uranium, as well as nationally designated “strategic” and “critical” minerals such as lead, zinc, copper, tungsten, and platinum group metals. The Forest Service recognizes that minerals are fundamental to the nation’s well being and, as policy, encourages the orderly exploration and development of the mineral resources on National Forest System lands. The Secretary of Agriculture has provided regulations (36 CFR 228) to ensure surface resource protection during the exploration and development of the mineral resources.

### **Minerals and Geology Question 1: Are the effects of mining activities on surface resources consistent with Forest Plan expectations, as allowed in approved Plans of Operations?**

#### **Monitoring Results**

##### *Small Mining Operations*

Five small-scale projects were reviewed. Site visits were performed on projects at the following locations: Woewodski Island, Zarembo Island, and the Herbert Glacier Prospect, in the Wrangell, Petersburg, and Juneau Ranger Districts, respectively; and Niblack and Bokan Mountain in the Craig Ranger District. Herbert Glacier prospect performed geologic mapping and hand sampling under a Notice of Intent. The other projects have approved Plans of Operations on file with their local districts and have active reclamation bonds in place. All active operations are in compliance with their respective Notices of Intent and Plans of Operations.

##### *Abandoned Mines*

Eight abandoned or inactive mines were visited by minerals team and resources specialists on the Juneau, Petersburg, Craig and Thorne Bay Districts to conduct inventory and field work for anticipated mitigation of physical hazards.

##### *Large Mining Operations*

##### **Greens Creek Mine**

The Greens Creek Mine is located on Admiralty Island. Most of the facilities lie within the Admiralty Island National Monument, however, a portion of the operation is located on the Juneau Ranger District. The operation consists of an underground mine, a surface mill and concentrator, waste rock disposal and tailings disposal facilities, a sand and gravel pit, and administrative facilities. The mine produces a poly-metallic ore (silver, zinc, gold, and lead), which is processed into three separate concentrates. These concentrates are shipped to various smelters throughout the world. An EIS for expansion of the existing dry tailings disposal facility was completed in late 2003 and is being implemented during a five year construction period. FY2007 was the third year of construction for the tailings facility. Work included the construction of a new water treatment plant, continued blasting and grading followed by lining of the northwest placement area, and construction of a larger retention pond north of the tails pile.

This year's surface exploration consisted of reconnaissance, detailed geological mapping, ground surveying, surface geochemical sampling, and geophysical sampling. Environmental analysis was conducted and subsequently surface drilling was permitted for the 2007 field season. Thirty-two (32) site visits for monitoring Best Management Practices effectiveness and compliance to their Plan of Operations were conducted during FY2007 by the Tongass Minerals Group.

### **Kensington Gold Project**

The Kensington Mine is a historic underground gold mine located 45 miles north of Juneau between Berner's Bay and Lynn Canal. Construction of the Kensington Gold Mine continued thorough out FY2007 with the mill site reaching 100 percent completion. A lawsuit was filed against the United States Army Corps of Engineers and the Forest Service, challenging the permitted tailings disposal facility at Lower Slate Lake, citing violations to the Clean Water Act. Plaintiffs failed in District Court but were upheld on appeal by the 9th Circuit Court. Near the end of calendar year 2007, a mediated group consisting of Coeur Alaska and the plaintiffs outlined a plan to submit a modified plan of operations to the Forest Service and other agencies for tailings storage. During FY2007, fifteen (15) site visits were conducted for monitoring Best Management Practices effectiveness and compliance with the Kensington Gold Project Plan of Operations by the Tongass Minerals Group.

### **Evaluation of Results**

Tongass-wide, two large locatable mine plans were administered as well as several dozen exploration drilling programs and mineral material operations were processed on the Tongass National Forest for FY2007. Fiscal Year 2007 inspections of mineral sites indicate that the effects of mining activities on surface resources are consistent with Forest Plan expectations. The necessity of operators to obtain approval for Plans of Operations provides the Forest Service the opportunity and authority to regulate the effects of the development on the forest surface resources.

### **Action Plan**

Monitoring should continue to consist of on-site visits by qualified personnel trained in Minerals Administration.