

Geohydrology and Water Supply, Shemya Island, Alaska

Shemya Island, Alaska, was occupied as a military base in 1942. Since that time, potable water has been supplied by streams, lakes, wells, and in the late 1950s, a gallery system.

The island is a low-lying, wave-cut platform composed of pyroclastic and volcanic rocks with some intrusives. Bedrock is overlain by thin glacial deposits. Most of the island's present surface is relatively thick peat deposits.

On the southern and western sides of the island active sand dunes are present. Ground-water supplies are limited by the dense bedrock; only a small amount of water penetrates into fracture systems. Most ground-water movement is in the overlying glacial and peat deposits. Ground water moves generally from north to south across the island.

Currently water supplies are drawn from the gallery system which is capable of providing about 200,000 gallons per day. An emergency water supply is available from two wells. Additional supplies could be developed by either adding to the existing gallery or constructing an additional gallery near the present gallery system.

The report is entitled "Geohydrology and Water Supply, Shemya Island, Alaska," by A.J. Fuelner, Chester Zenone, and K.M. Reed. Duplicated copies are available from Room 316, Skyline Building, U.S.

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