

USGS - EPA Utah AML Project

SIR 2004-5241

Fe-bearing Minerals and Water

Quinn Mountains Region

AVIRIS high-altitude data

August 5, 1998

Run 9, NEW3 calibration

Tetracorder 3.6a9 Product

**Iron Sulfide and Sulfate Minerals**

- pyrite
- possible copiapite
- fine-grained jarosite
- coarse-grained jarosite
- goethite + jarosite

**Iron Hydroxide Minerals**

- goethite: coarse-grained
- goethite: medium-grained
- goethite: fine-grained
- goethite: thin coating

**Iron Oxide Minerals**

- hematite: medium- to coarse-grained
- hematite: fine-grained

**Other Iron Minerals**

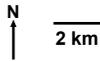
- minerals with generic Fe<sup>2+</sup> absorptions (including actinolite, chlorite, biotite, and illite/muscovite)
- generic Fe<sup>2+</sup> with goethite and muscovite
- generic Fe<sup>2+</sup> with hematite
- minerals with generic Fe<sup>3+</sup> absorptions
- other Fe<sup>2+</sup> minerals (mainly illite/muscovite), +1-jarosite, +1-goethite

**Mineral Assemblages with Low to Moderate Acid-Neutralizing Potential**

- chlorite + illite/muscovite
- chlorite + goethite

**Water Classes**

- water + sediment
- water + red algae
- water with high chlorophyll content



**Map information:**

Data Type: high-altitude AVIRIS  
 Acquisition Date: August 5, 1998  
 Platform: NASA ER-2  
 Altitude: 65,000 feet ASL  
 Georeferencing:  
 - roll, pitch, and yaw effects removed

Note: geographic coordinates are approximate

