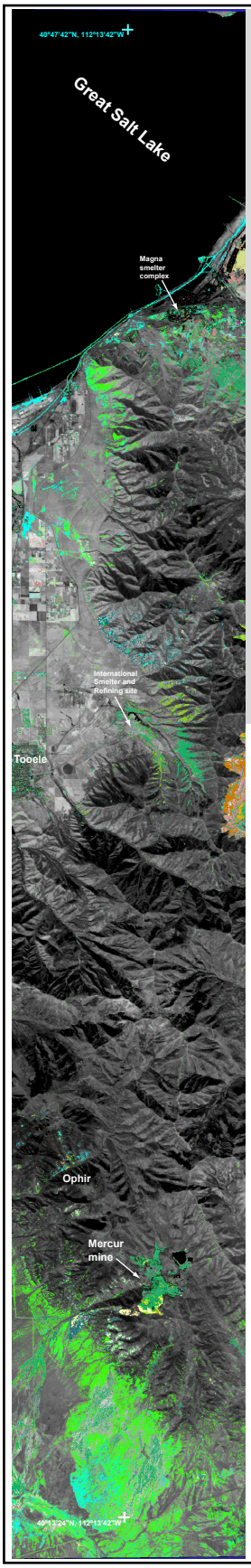

USGS - EPA Utah AML Project

SIR 2004-5241

Clay, Sulfate, Mica, and Carbonate Minerals

Oquirrh Mountains Region

AVIRIS high-altitude data
August 5, 1998
Run 9, NEW3 calibration
Tetracorder 3.6a9 Product

Kaolinite Group Minerals

- kaolinite + illite/muscovite or smectite
- kaolinite (well-crystallized)
- kaolinite (poorly crystallized and/or impure float)

Sulfate Minerals

- jarosite +/- illite +/- smectite
- gypsum
- gypsum + jarosite +/- illite intimate mixture
- alunite
- alunite + kaolinite +/- sericite

Carbonate Minerals

- calcite
- calcite + muscovite
- dolomite
- calcite + dolomite +/- montmorillonite
- calcite + kaolinite

Sericite Group Minerals

- high-Al illite/muscovite
- medium-Al illite/muscovite
- low-Al + Fe-rich illite/muscovite

- epidote
- talc +/- Mg clays +/- amphibole
- montmorillonite (Ca + Na)

N

2 km

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

USGS
science for a changing world