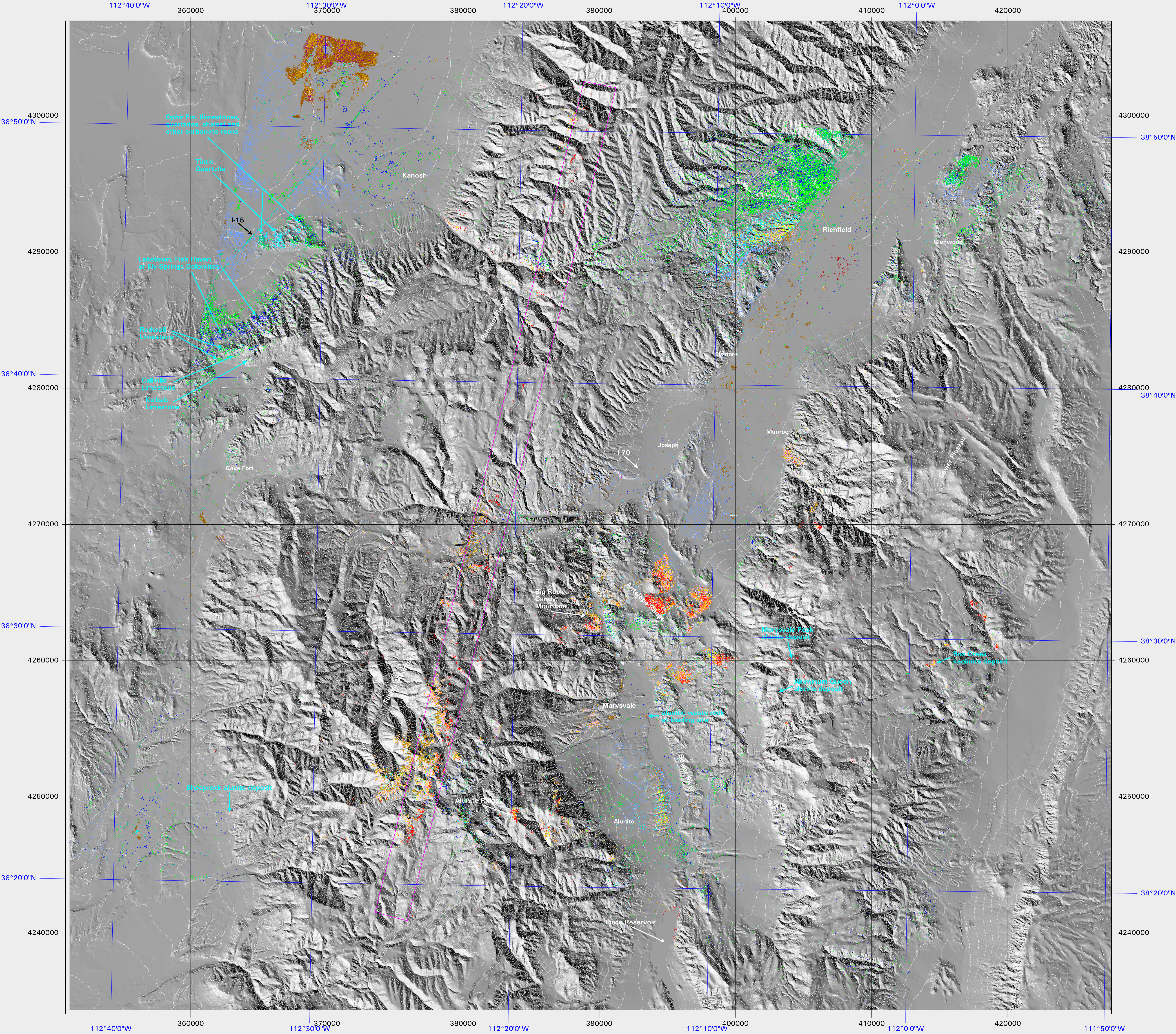
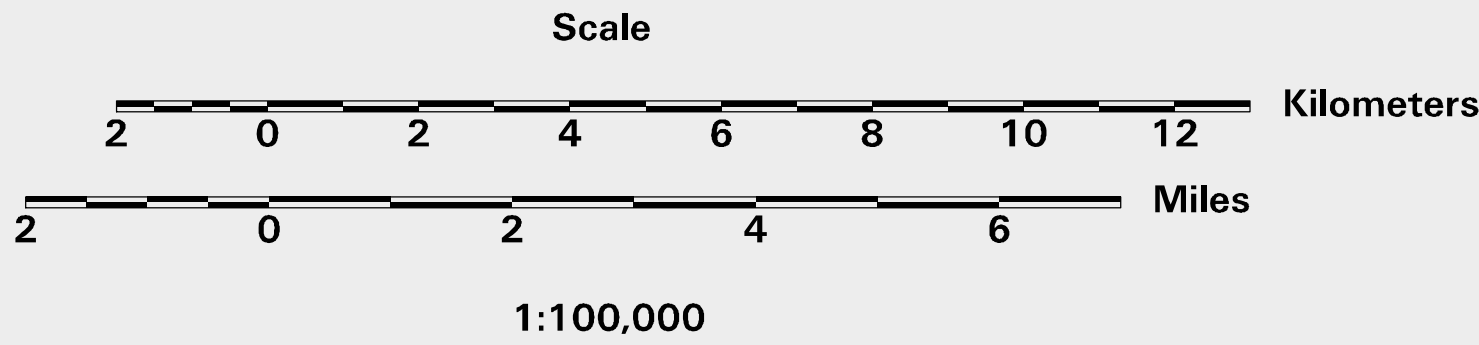


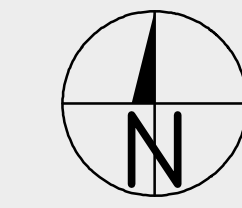
Map of Clay, Sulfate, Mica, Hydrous Quartz, Carbonate, and Mg-OH Minerals Derived from ASTER Data
with Dickite Included in Spectral Matching
Tushar Mountains/Pahvant Range/Sevier Plateau, Utah



- ASTER Scene ID: SC:AST_L1B.003:2007212624
- Acquired June 12, 2002
- ASTER data orthorectified using a Projective Transform to mosaicked TerraServer digital orthophoto quadrangles and a 1/3 arc second digital elevation model (~10 m resolution) from the USGS National Elevation Dataset (NED, provided by USGS Seamless Data Distribution System).
- Topographic contours and shaded relief image derived from 1/3 arc second NED digital elevation model. Contour interval 50 m.
- Spectral analysis by Barnaby W. Rockwell, March 2004



Universal Transverse Mercator Projection
Zone 12
Clarke 1866 Spheroid
NAD 27 Horizontal Datum



Region of image in which material identifications are unreliable due to defect in the SWIR detector array ("Filter Scratch") (Iwasaki and Oyama, 2005).

Explanation for ASTER mineral mapping:	
Clay-bearing Assemblages - kaolinite +/- dickite/nacrite - kaolinite +/- sericite - kaolinite +/- amesite (high-albedo surfaces with minor and/or minor kaolinite, often supergene) - montmorillonite/sericite, or low-abundance sericite Carbonate and Fe/Mg-OH Minerals* - calcite - chert (Mg-OH SWIR + broad Fe-OH SWIR absorption) - epidote or calcite + dolomite mixture - calcite or chondrochalcite + sericite or amesite * These minerals, including amphiboles, are often difficult to distinguish reliably using ASTER SWIR data because of spectral similarities and/or sensor noise and may co-occur as mixed and intimate mixtures. They also may be incorrectly identified in areas of sparse, dry vegetation.	Sulfate-bearing Assemblages - possible pyrophyllite +/- alunite/sericite (cf. pyrophyllite) - natron/sericite, or alunite + minor kaolinite - alunite +/- kaolinite - jarosite +/- gypsum, or ferric iron + hydrous quartz - gypsum +/- clays * These assemblages may represent areas of mixed dry vegetation or areas of sensor instability related to low or high surface albedo. Sericite-bearing Assemblages - Al/Fe illite/muscovite, or mixture of muscovite and chlorite, calcite, and/or dry vegetation - hydrous quartz (chalcedony or opal), or jarosite/gypsum + clay/mixed near mapped occurrences of jarosite - dickite