

Mineral Resources Program Spatial Data Available on the Web at

<http://mrdata.usgs.gov>

Earth science information is important to decision makers who formulate public policy related to mineral resource sustainability, land stewardship, environmental hazards, the economy, and public health. To meet the growing demand for easily accessible data, the Mineral Resources Program (MRP) has developed, in cooperation with other Federal and State agencies, an Internet-based, data-delivery system that allows interested customers worldwide to download accurate, up-to-date mineral resource-related data at any time. All data in the system are spatially located (that is, all data are referenced to geographic locations) and customers with Internet access and a modern web browser can easily produce maps having user-defined overlays for any region of interest.

These data are available to anyone. To date, thousands of datasets have been downloaded from the web site. Users include individuals at other government agencies (including other Interior Bureaus, state and local agencies), individuals in the private sector, academicians, and members of the general public, nationally and internationally.

The MRP datasets include geologic and lithologic maps; gravity, magnetic, radiometric, and derivative geophysical maps; mineral resources data from the Mineral Resources Data System (MRDS) and Minerals Availability System (MAS); geochemical data from the National Geochemical Database; and a selection of base-map layers depicting land use, hydrography, topography, and cultural features.

The goal of the MRP project is to provide comprehensive coverage of the United States that is consistent and seamless and that will support the needs of regional- and national-scale research and land-planning activities. Although most datasets focus primarily on the United States, many datasets have a global extent.

What Do I Need to Access the Datasets?

The system is platform independent so that it will work with any operating system using any hardware. The web-based access system allows highly flexible, interactive map creation using a limited GIS system, that can be displayed in a window on your web browser.

What Can I Do with the Datasets?

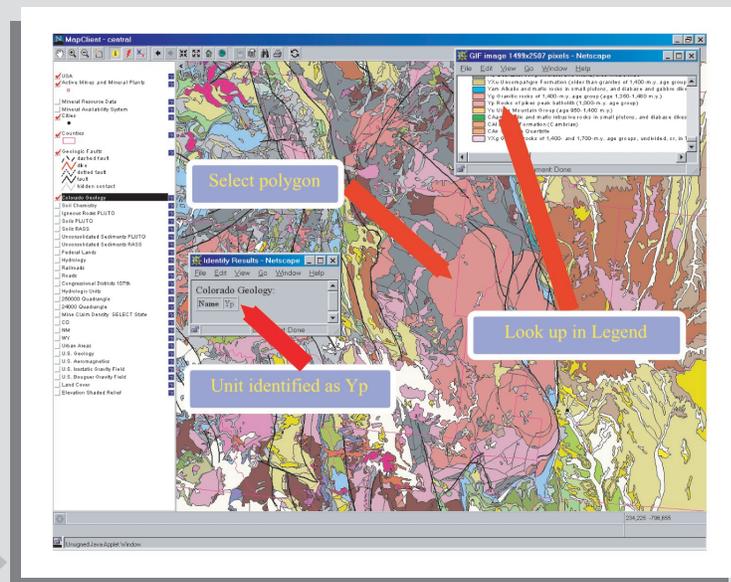
With Internet access and a modern web browser you may

- Browse major MRP data sets in a spatial context
- Create a map on screen
- Query and select subsets from any data layer
- Display portions of datasets in tabular format
- Download user-defined maps as print/plot files
- Download data sets for offline processing

What Can Be Created Using MRP Spatial Data ?

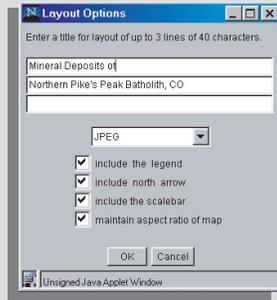
This geologic map of an area in central Colorado was created using the spatial data-delivery system. The screen shows the menu selections that were made to produce the map using the following steps:

- Select the initial outline of the map from (<http://mrdata.usgs.gov>).
- Select data layers to be displayed on the map. Layers selected in this example (shown by red check marks on the layer list) were major cities, county outlines, geology from the Geologic Map of Colorado (Tweto, 1979), and major faults from the Geologic Map of the United States (King and Beikman, 1974).



- Select a central Colorado study area, using the “zoom-in” feature.
- Highlight the Colorado geology layer as the active layer and use the “identify” function to display more information about any specific feature on the active layer.
- Select a polygon from the geology layer of the map and the map unit will be displayed in the window (Yp).
- The explanation for the geology layer (shown here as the window with white background) can be used to obtain additional information about the map unit Yp.

A plot file can be created for the on-screen map. This example of a map in central Colorado has the following data layers: geology, major faults, counties, cities, sample localities of igneous rocks with analyses in the National Geochemical Database, localities of mineral occurrences from MRDS and MAS databases, and locations of active mines and mineral plants. After all of the layers have been identified, select the "print" function, add the title and select any other optional features in the pop-up window, and click OK.



The server will create print files for the map and download them to the user. This map required two pages, one for the map and the data layers list, and a second with the full map explanation showing only symbols that appear within the map outline defined by the user.

The spatial data available on the Web at <http://mrddata.usgs.gov> will continue to be updated. Check the website for new features and new and updated data sets.

<http://mrddata.usgs.gov>

References Cited

King, P.B., and Beikman, H.M., 1974, Geologic Map of United States: U.S. Geological Survey, 2 plates, scale 1:2,500,000.

Tweto, Ogden, 1979, Geologic Map of Colorado: U.S. Geological Survey, scale 1:500,000.

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Map explanation





Mineral Deposits of Northern Pike's Peak Batholith, CO

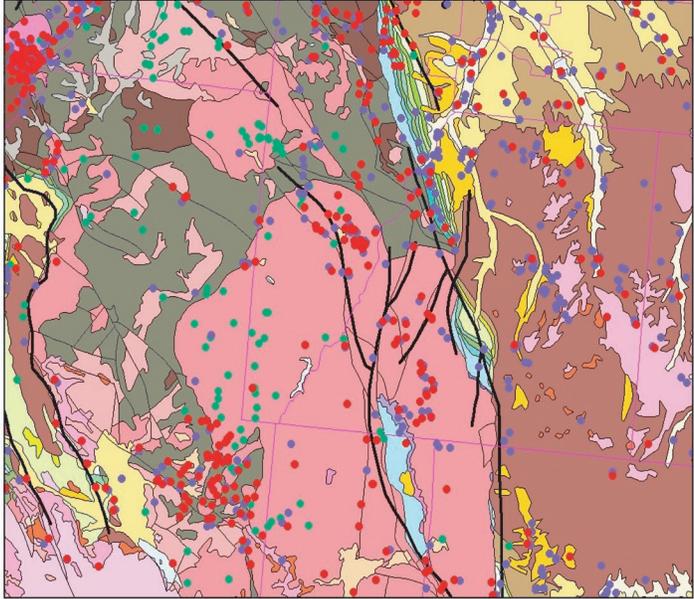
Expanded Legend

Active Mines and Mineral Plants		Kpu
Mineral Resource Data		M_
Mineral Availability System		Mz
Igneous Rocks PLUTO		MzPz
Cities		O_
Counties		P&f
Geologic Faults		Qa
Colorado Geology		Qd
		Oe
		Og
		Ogo
		TKda
		TKdl
		Tdu
		Te
		Tgy
		Tmi
		To
		Tos
		Tpl
		Tsp
		Twrm
		Twr
		Xb
		Xfb
		Xg
		Yg
		Yp

Map and data layers



Mineral Deposits of Northern Pike's Peak Batholith, CO



Active Mines and Mineral Plants

Mineral Resource Data

Mineral Availability System

Igneous Rocks PLUTO

Cities

Counties

Geologic Faults

Colorado Geology

(details on expanded legend)




USGS Mineral Resources Spatial Data
<http://mrddata.usgs.gov>

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 (There is one page of expanded legend)
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