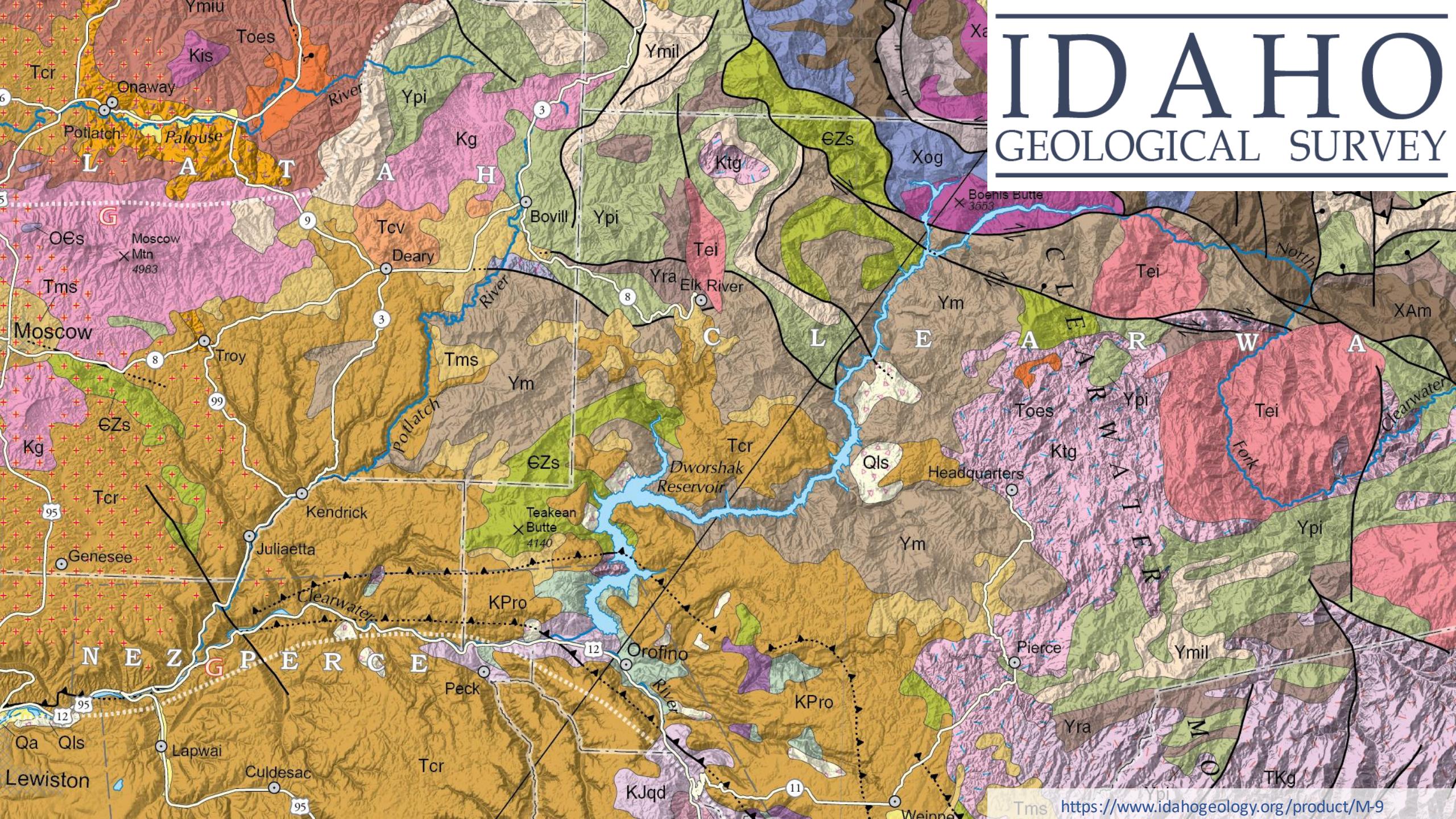


IDAH

GEOLOGICAL SURVEY



IDAH

GEOLOGICAL SURVEY

A New Database Initiative for
Geologic Mapping in Idaho

Nathan Hopkins
Geoscience Manager

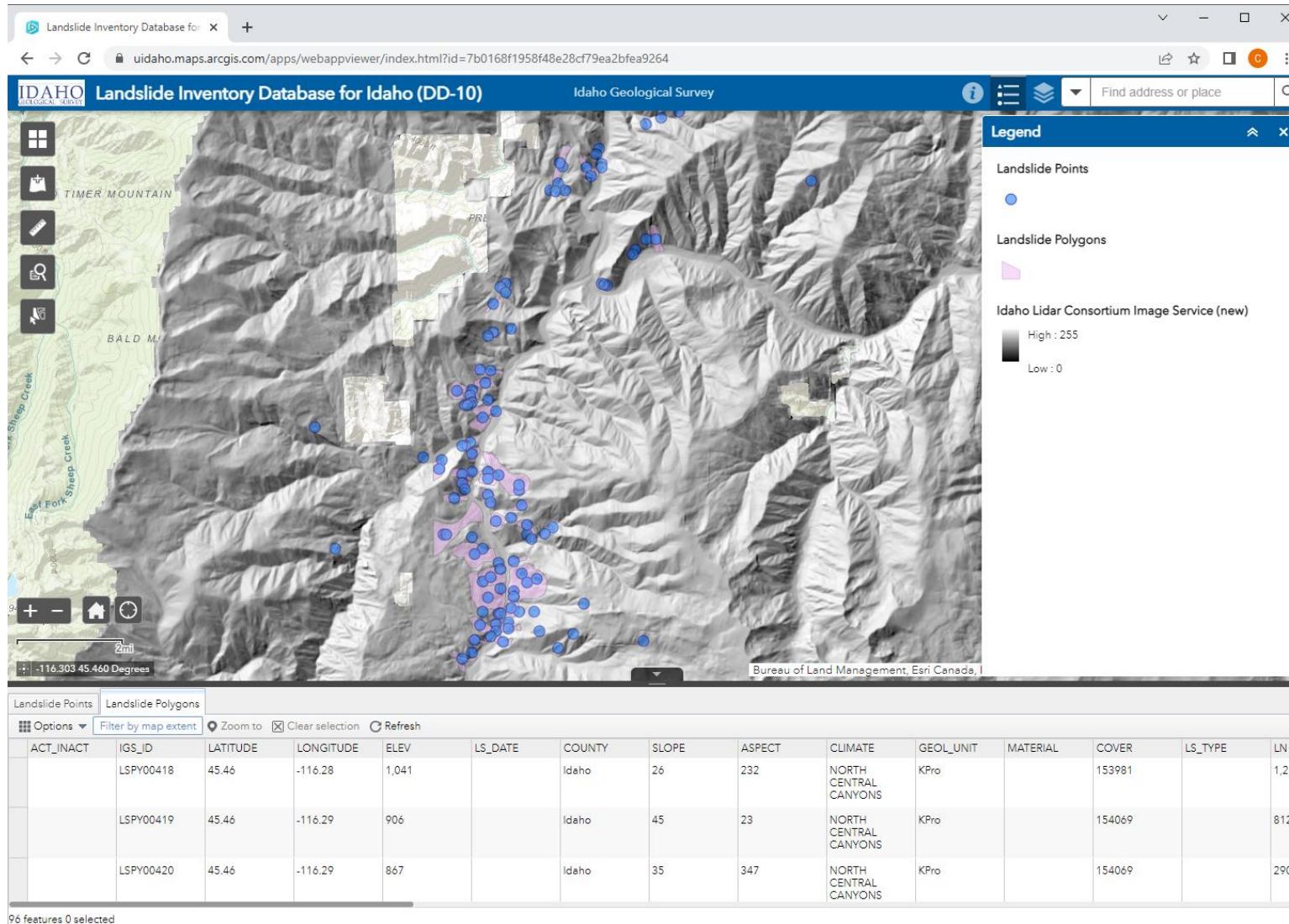
- Overview of IGS data products
- Status of geologic mapping in Idaho
- Introduction to USGS GeMS standard
- IGS seamless database initiative



Pictured: Geologic Map of Idaho (M-9), 2012
<https://www.idahogeology.org/product/M-9>

Landslide Inventory Database for Idaho (Digital Database, DD-10)

<https://www.idahogeology.org/product/DD-10>



IGS Data Products

IGS distributes freely-available, extensive, and authoritative spatial and non-spatial data related to all aspects of the geology of Idaho

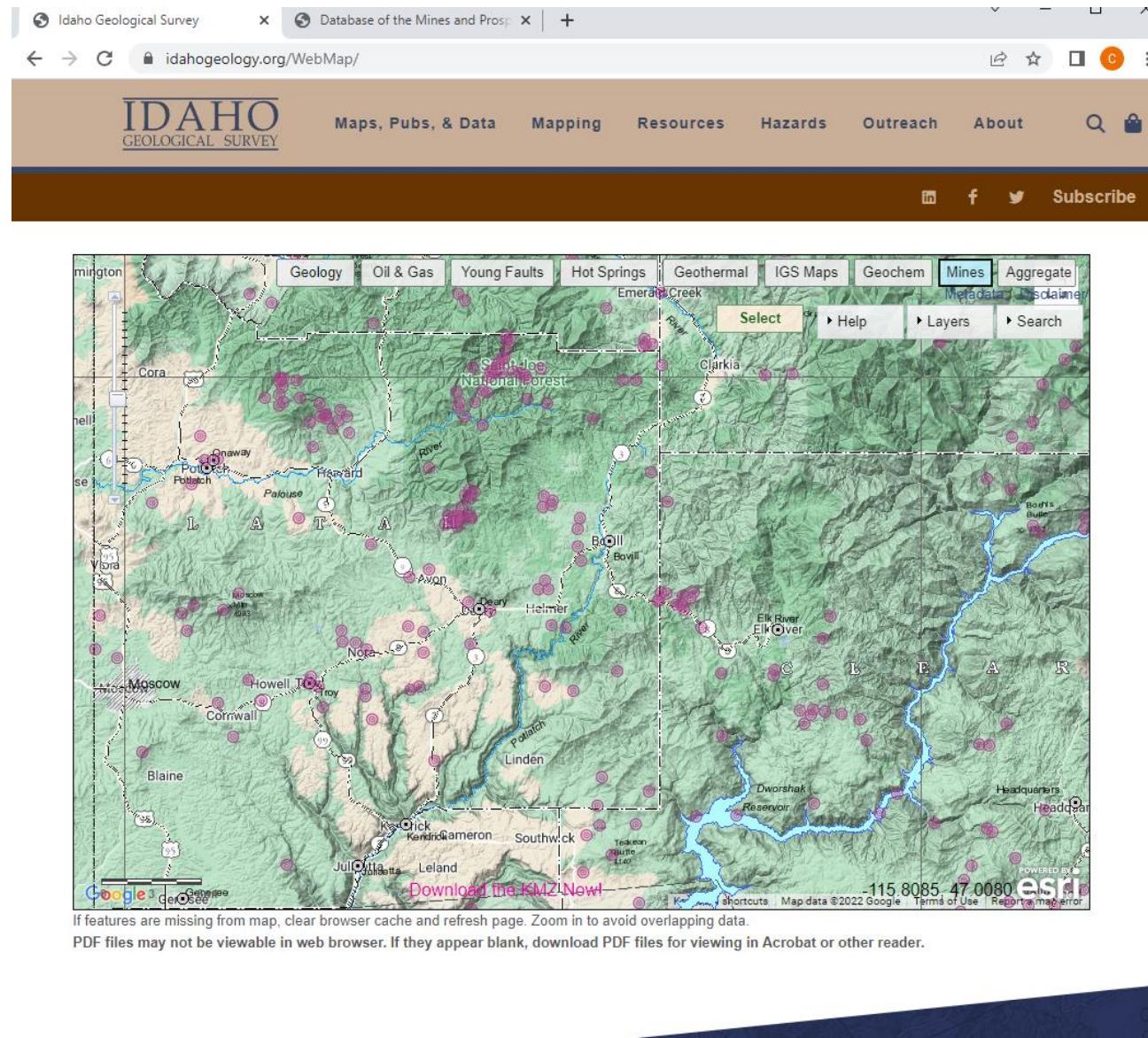
- Geologic Mapping
- Geochemistry and Geochronology
 - Hazards
- Historic and current mining activity
 - Oil & Gas exploration
 - Hydrogeology
 - Geothermal resources

See our Interactive Web Map

<https://www.idahogeology.org/WebMap/>

Database of the Mines and Prospects of Idaho (Digital Database, DD-1)

<https://www.idahogeology.org/product/DD-1>



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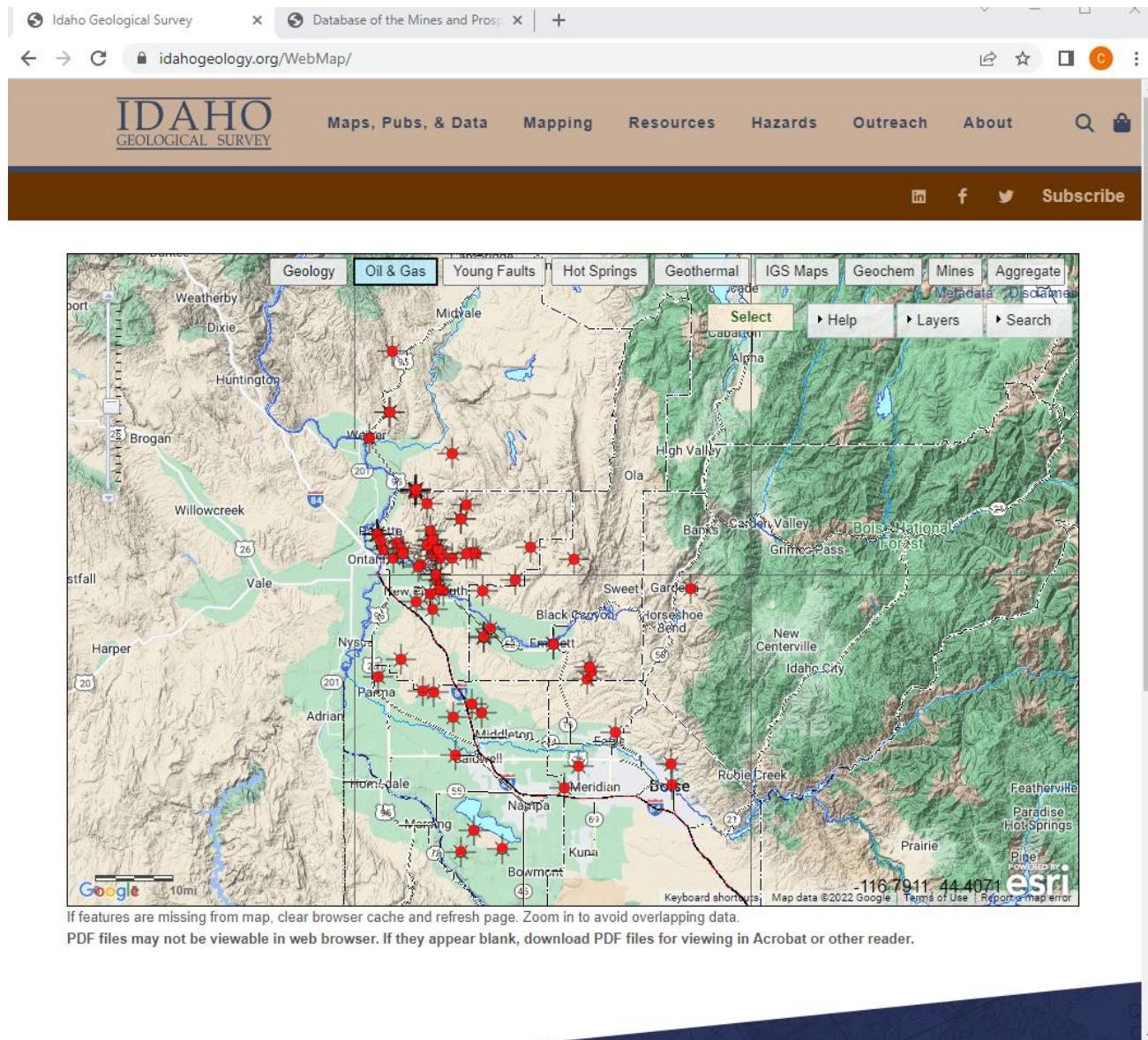
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See also periodic reports on
mining and exploration in Idaho

Database of the Mines and Prospects of Idaho (Digital Database, DD-1)

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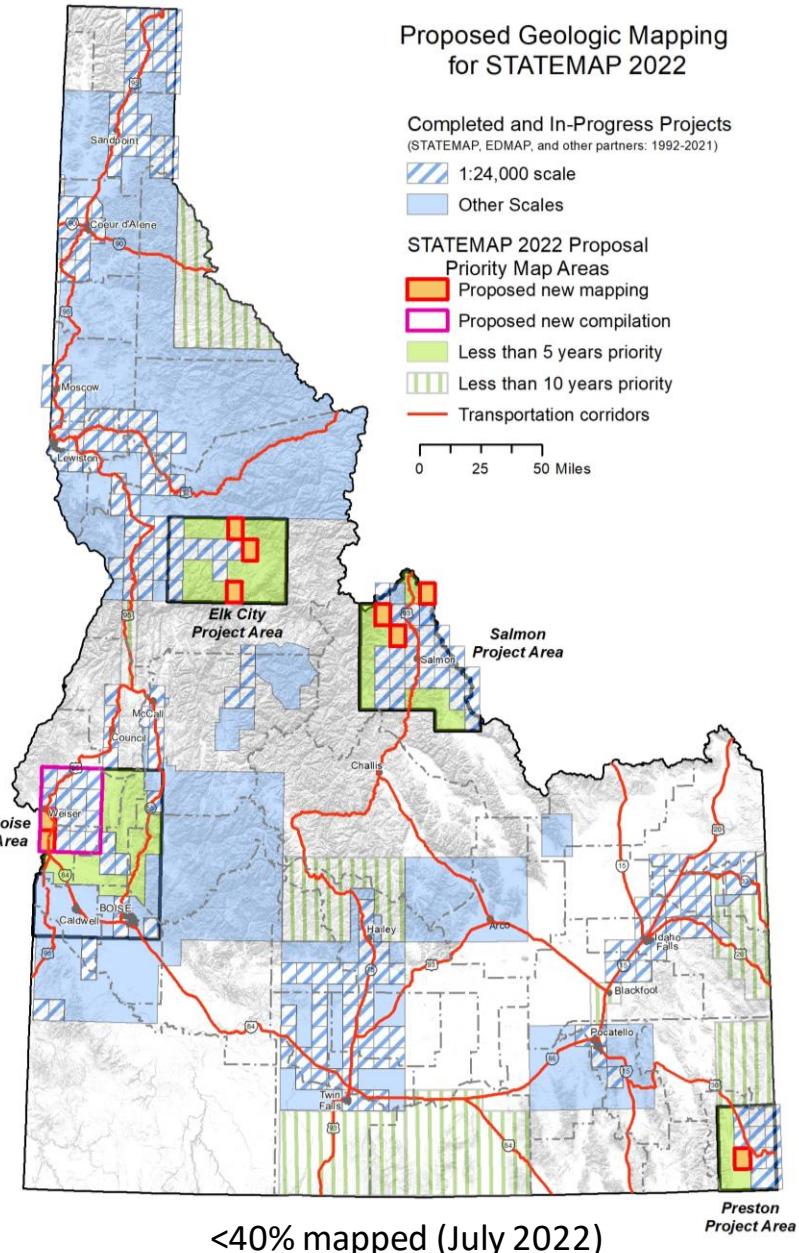
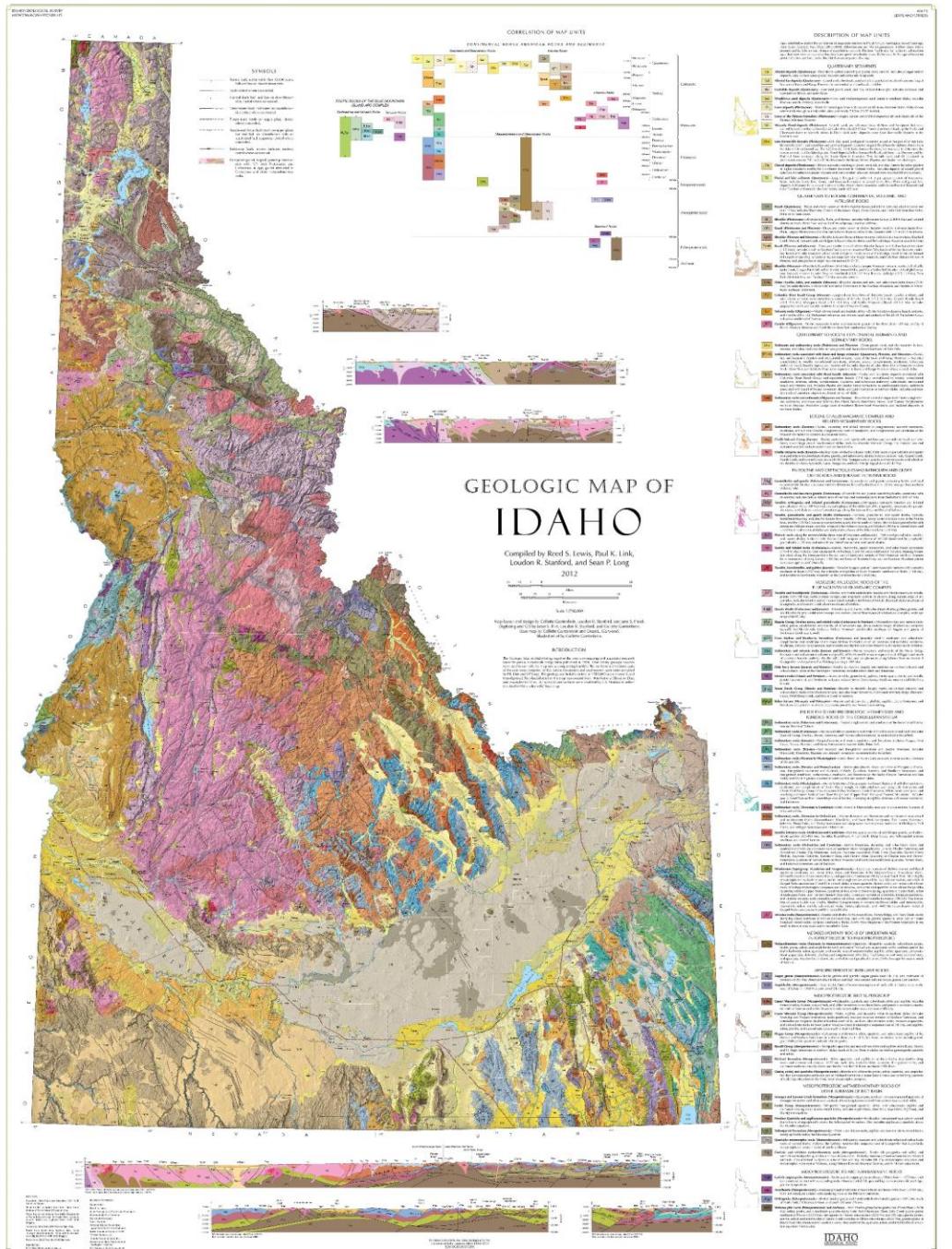
IGS Data Products

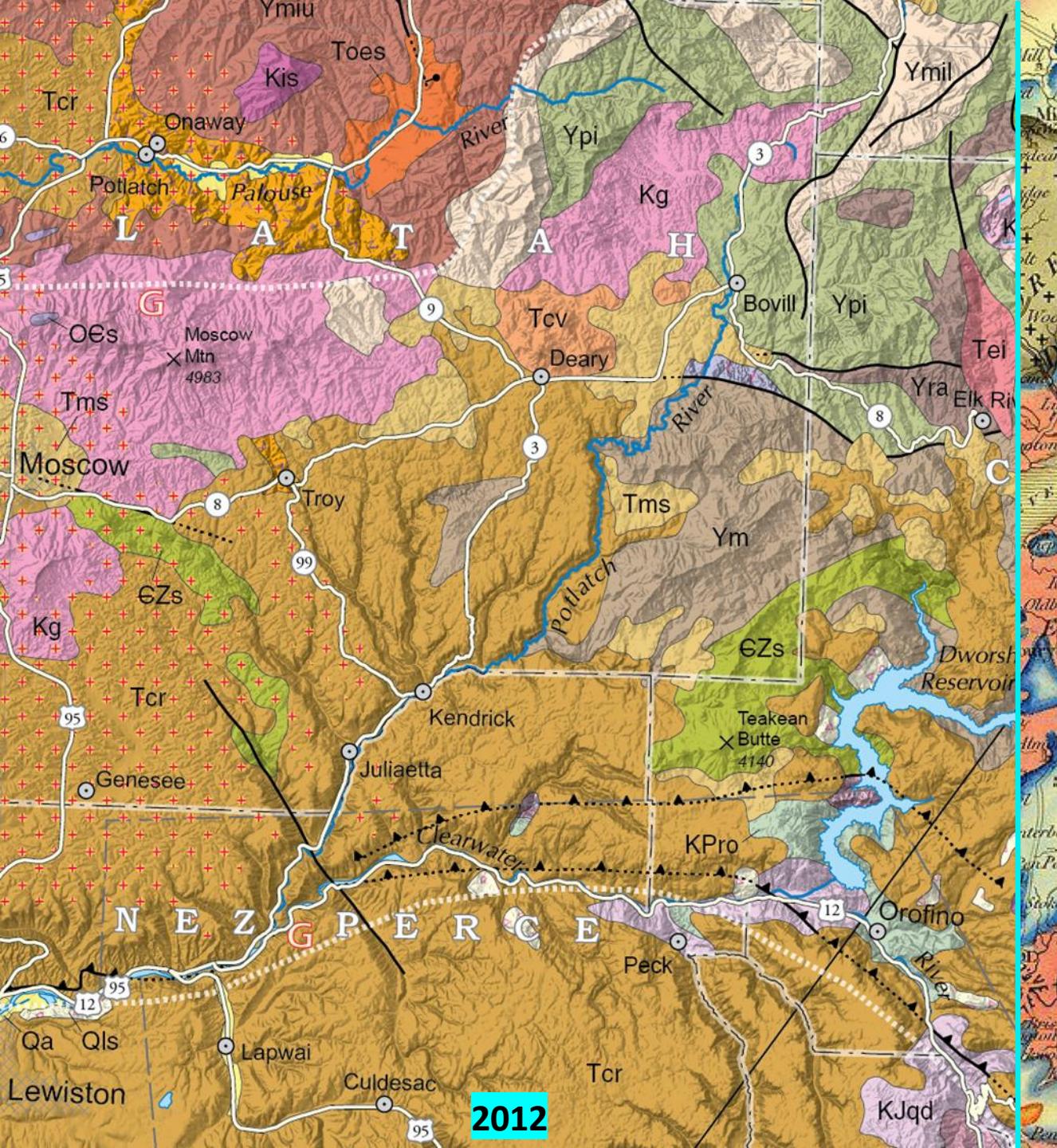
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2012



1815

GEOLOGIC MAP OF THE DEGAN MOUNTAIN QUADRANGLE, LEMHI COUNTY, IDAHO

Reed S. Lewis, Andrew S. Canada, David E. Stewart, and Russell F. Burnham
2021

INTRODUCTION

The geologic map of the Degan Mountain quadrangle is a detailed reconstruction of the rocks and structures in the quadrangle. The map includes a variety of geological features such as metamorphic rocks, igneous rocks, and sedimentary rocks. It also includes contour lines and section lines A-A' and B-B'.

MAP UNITS

The map uses a color-coded system to identify different geological units. The units are divided into three main groups: METAMORPHIC, IGNEOUS, and SEDIMENTARY. The METAMORPHIC group includes units like Schist, Gneiss, and Metasediment. The IGNEOUS group includes units like Intrusive, Extrusive, and Volcanic. The SEDIMENTARY group includes units like Shale, Sandstone, and Limestone.

STRUCTURE

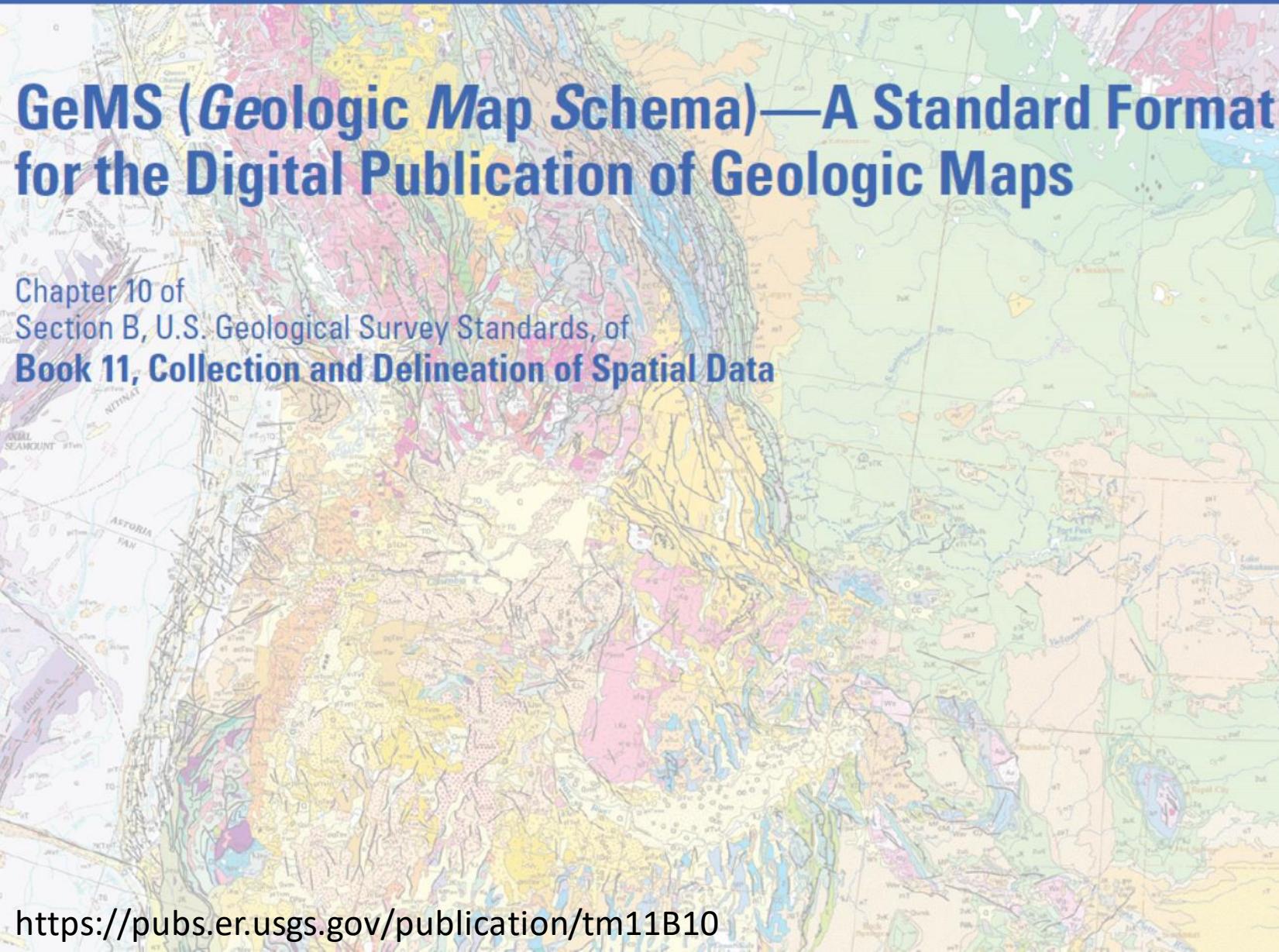
The map shows several structural features such as thrust faults, folds, and joints. These features are indicated by specific symbols and lines on the map.

MINERALIZATION

The map highlights several mineralized areas, including the North Main Iron Oxide Deposit, the South Main Iron Oxide Deposit, and the Granite Creek Gold Deposit. These deposits are shown as shaded areas with specific symbols indicating their nature and potential.

ACKNOWLEDGMENTS

Special thanks are given to the many individuals who contributed to the preparation of this map. Special thanks are also given to the many individuals who contributed to the preparation of this map.

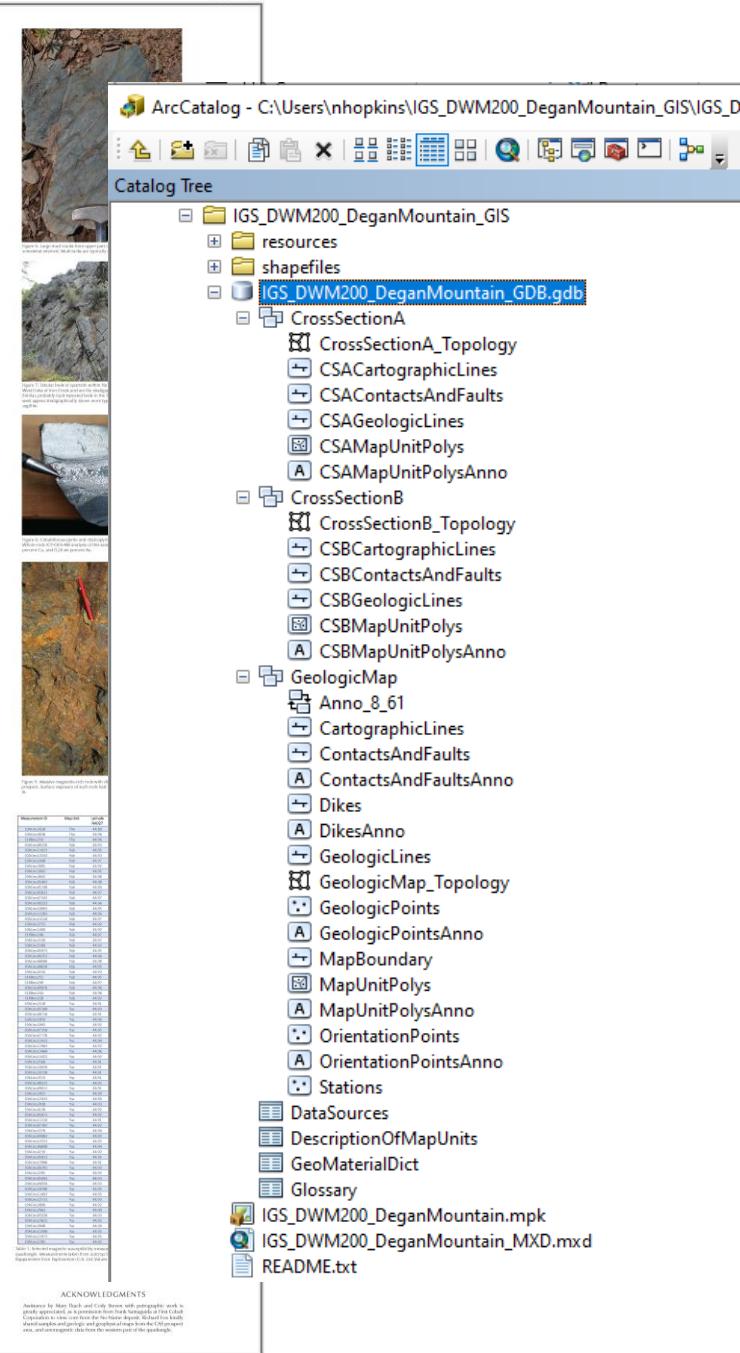
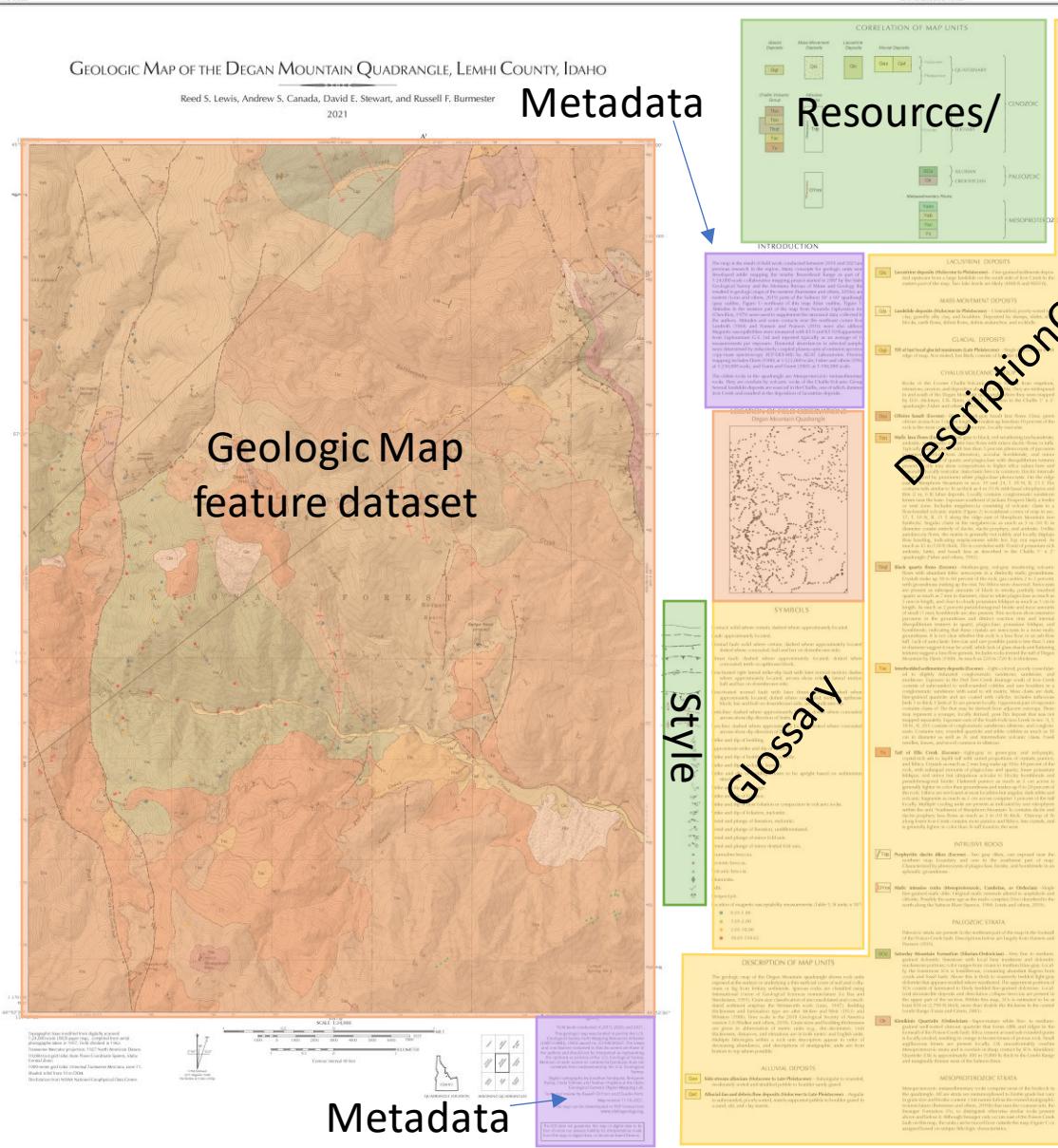
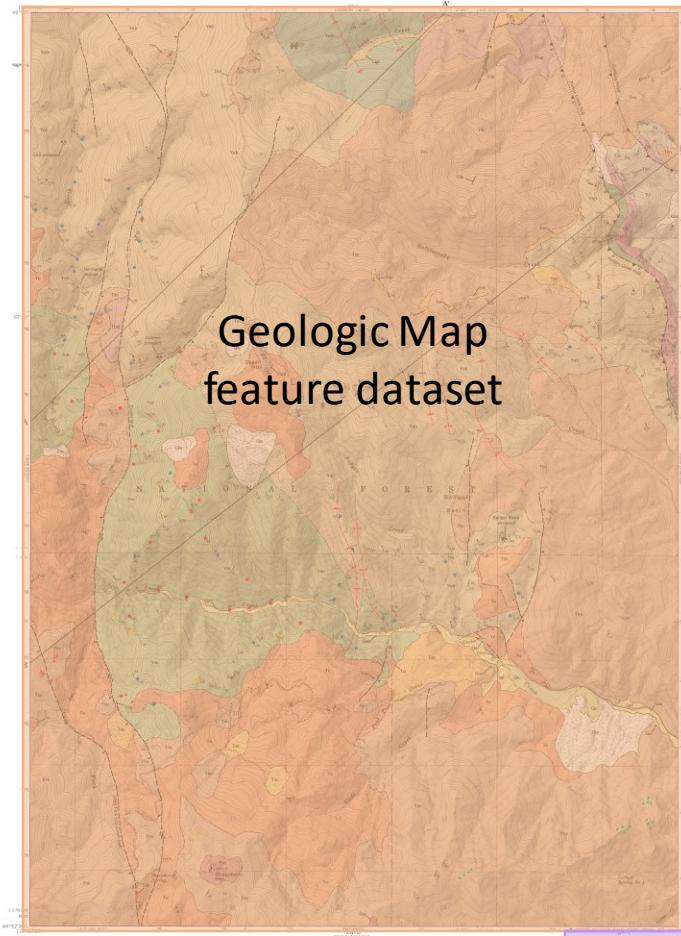


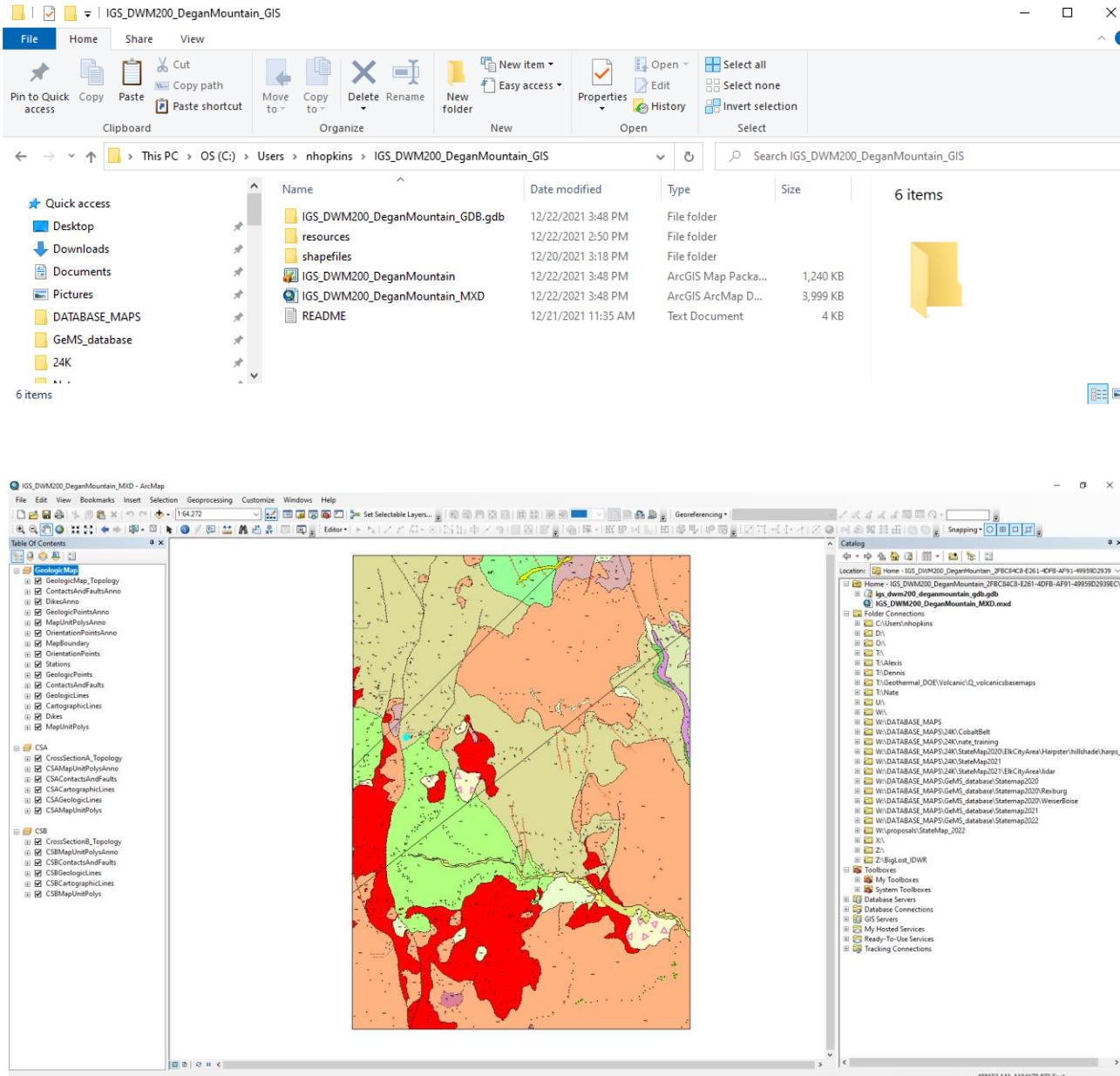
GeMS (Geologic Map Schema)—A Standard Format for the Digital Publication of Geologic Maps

Chapter 10 of
Section B, U.S. Geological Survey Standards, of
Book 11, Collection and Delineation of Spatial Data

example.gdb	
CorrelationOfMapUnits	optional
CMULines	optional
CMUMapUnitPolys	optional
CMUPoints	optional
CrossSectionA	optional
CSAContactsAndFaults	optional
CSAMapUnitPolys	optional
CSAOrientationPoints	optional
GeologicMap	required
CartographicLines	as-needed
ContactsAndFaults	required
DataSourcePolys	as-needed
FossilPoints	as-needed
GenericPoints	as-needed
GeochronPoints	as-needed
GeologicLines	as-needed
MapUnitLines	as-needed
MapUnitOverlayPolys	as-needed
MapUnitPoints	as-needed
MapUnitPolys	required
OrientationPoints	as-needed
OverlayPolys	as-needed
Stations	as-needed
DataSources	required
DescriptionOfMapUnits	required
GeoMaterialDict	required
Glossary	required
MiscellaneousMapInformation	optional
RepurposedSymbols	as-needed
StandardLithology	optional

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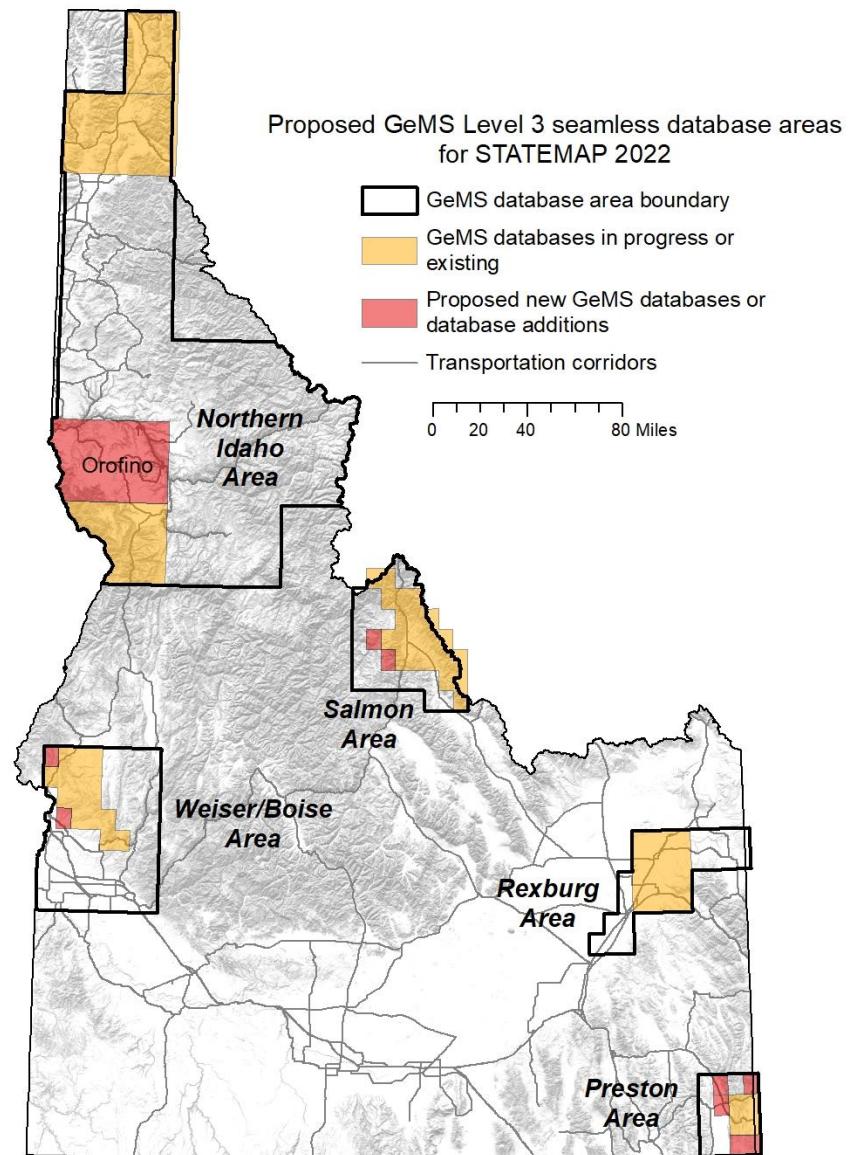


Geologic Map GIS package

1. GeMS-compliant file geodatabase
2. Shapefile version
3. ArcGIS Map Package
4. ArcMap Document
5. Resources folder
 - Supplemental or nonstandard information
 - Figures, tables, etc.
 - Geologic correlation chart
 - Fonts for map labels and symbology
 - Style file

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O GEOLOGICAL SURVEY



Looking to the Future

Seamless 1:24k scale geology

Compliant with national standard

Interoperable with neighboring states and federal datasets

Efforts ongoing (20% completed)

First published seamless compilation expected summer 2023

IDAH

GEOLOGICAL SURVEY

