State Geological Surveys: Capabilities and Needs

BEG – UT Austin

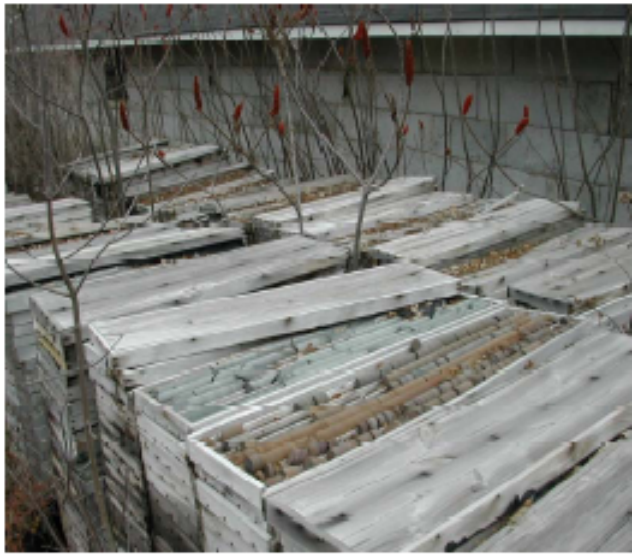
Maine Geological Survey

AASG

Association of American State Geologists

The Good

The Bad



And the Ugly

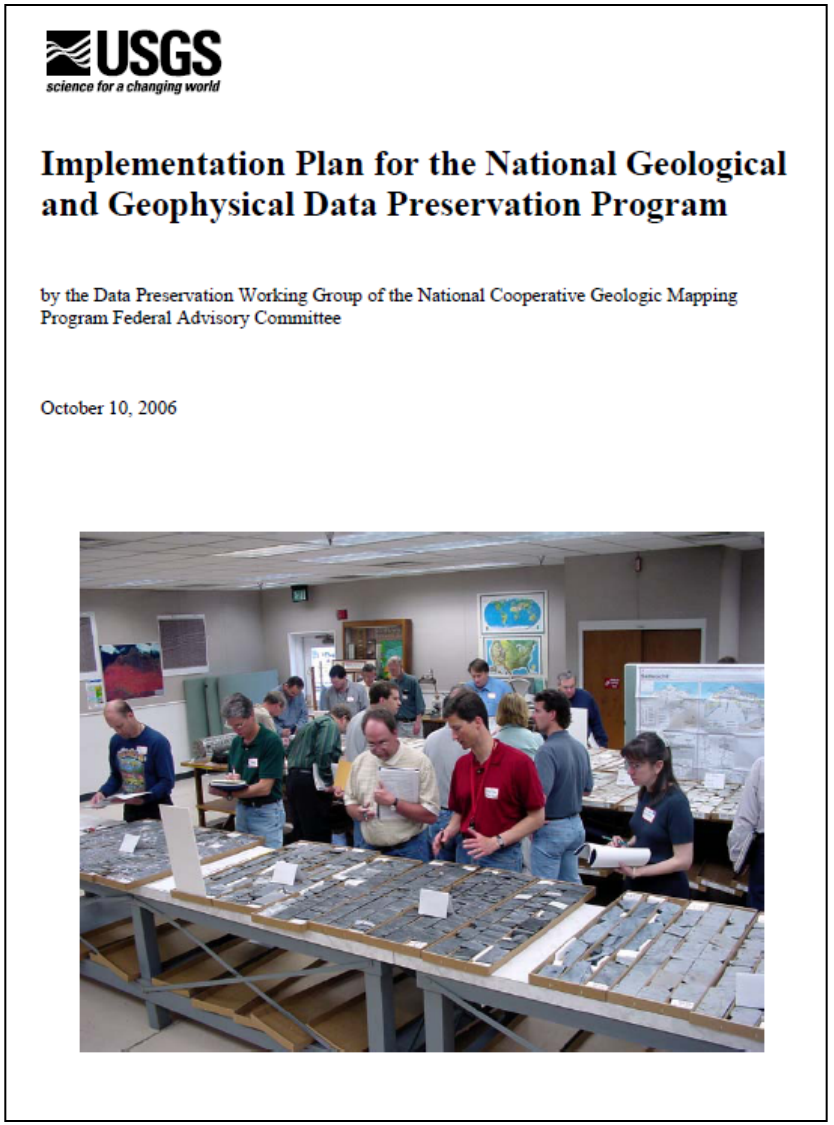
AASG
Association of American State Geologists

USGS
science for a changing world

2005: National Geological & Geophysical Data Preservation Program
(1) to archive geologic, geophysical, and engineering data, maps, well logs, and samples;
(2) to provide a national catalog of such archival material; and
(3) to provide technical and financial assistance related to the archival material.

The Program is comprised of “State agencies that elect to be part of the system and agencies within the Department of the Interior that maintain geological and geophysical data and samples.”

Authorized at $30M, funded at $1M; cut to $600K


USGS
science for a changing world

Implementation Plan for the National Geological and Geophysical Data Preservation Program

by the Data Preservation Working Group of the National Cooperative Geologic Mapping Program Federal Advisory Committee

October 10, 2006

Home

About

Best Practices in Data Preservation

Contact Us

Financial & Technical Assistance Program

National Digital Catalog - Metadata Reference Information

USGS Repositories

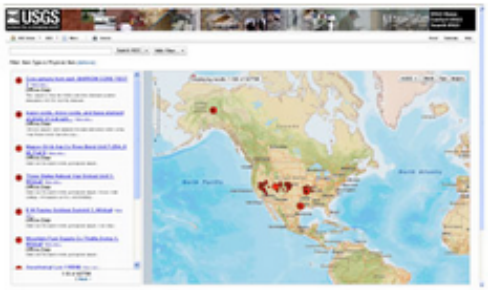
Resources

NGGDPP Frequently Asked Questions

NGGDPP Instructional Webinar Sessions

The National Digital Catalog

Instructions for Accessing and Interacting with Geoscience Collections



Information provided in this website is intended to guide NGGDPP State participants to

1) prepare files containing metadata for geoscience collection items, and

2) add and edit collection and associated sample metadata to the National Data Catalog.

National Digital Catalog exists in ScienceBase, a data management platform.

Visit National Digital Catalog - view participating State Organizations and their physical sample collections

As a data provider for your State organization, please refer to following guidance for data submission:

- Access Geoscience Collections
- Edit and Create Collection Records
- Prepare Collection Files and View File Examples
- Upload and Process Collection Files

Reference Documents

NGGDPP Metadata Preparation - metadata elements, formats, and requirements

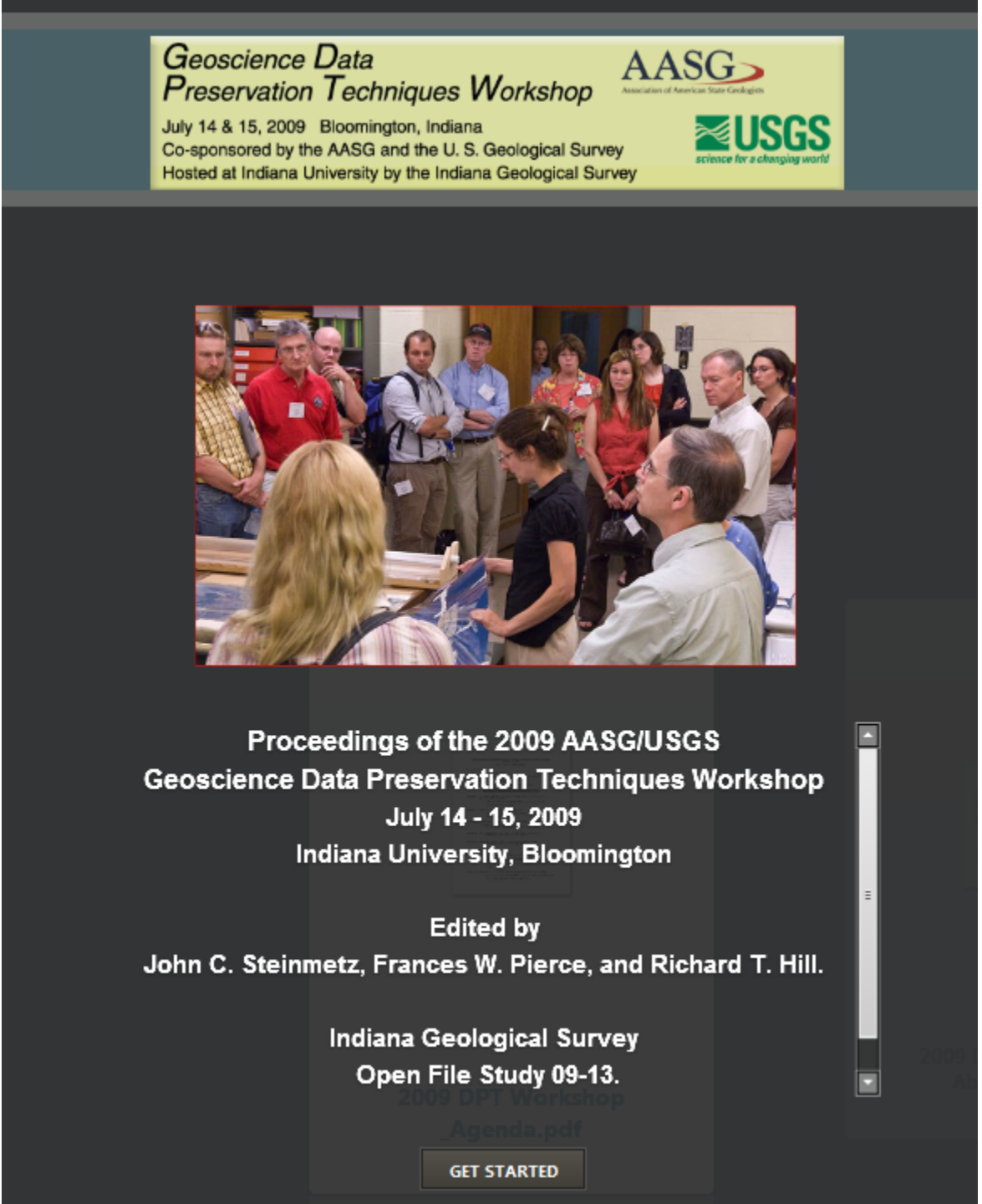
Interacting with National Digital Catalog - guidance for accessing and editing collections

XML File Example - example for structuring sample metadata in XML format

CSV File Example- example for structuring sample metadata in CSV format

Metadata Validation Schema- XSD file for validating XML formatted data

Metadata Profile for the National Digital Catalog, version 1.0

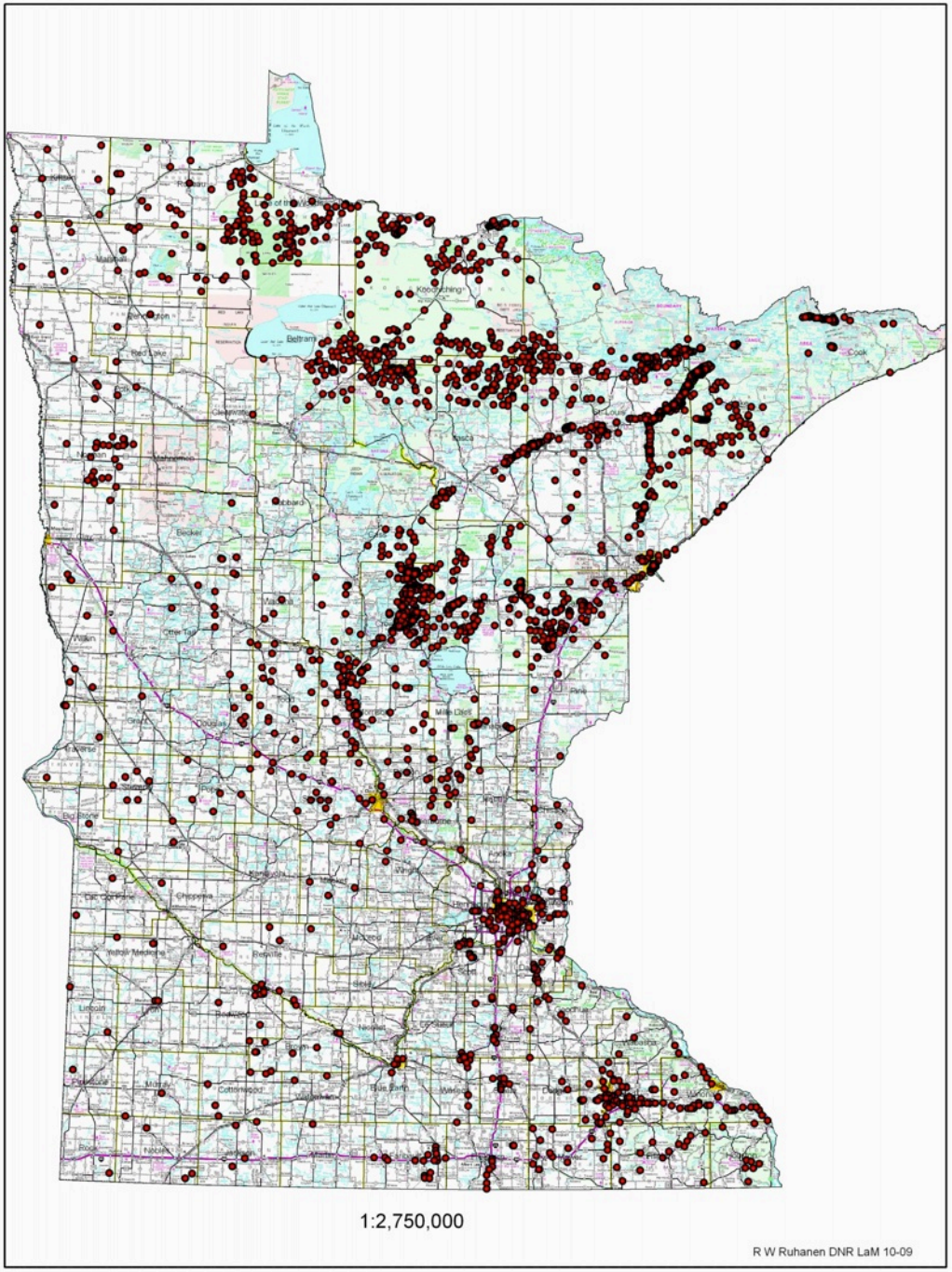


Examples of Physical Geoscience Collections

Auger samples
Fluid samples (oil, gas, water)
Geochemical samples
Hand samples (incl. geotechnical, rock, and mineral)
Ice cores
Paleontological samples (micro/macro)
Rock cores
Rock cuttings
Sediment cores
Sidewall cores
Thin sections and polished sections
Type stratigraphic sections

➢ Collecti

- Drill core
  - ➢ 3 million fe



Collections

- Cuttings
  - 4900 sites

Collections

- Hand samples

Collections

- Thin sections

Collections

- Fossils
  - 16,242 specimens

BELL MUSEUM
of Natural History

Michigan Geological Survey Core Facility - Collections

Layout and examination of Michigan Cores

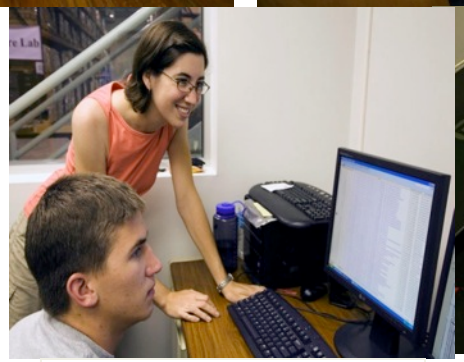
Careful inventorying and preservation of core and sample material. Reboxing and repackaging

- Part of the Geosciences Department at Western Michigan University
- 7000 sq. ft. office and lab space
- 20,000 sq. ft. of warehouse storage
- Study and research by Industry for natural resources exploration and development
- Study and research by Faculty, staff, undergraduate and graduate students
- Archive of over 500,000 feet of core
- More than 20,000 well set of drill cuttings
- Archives of digital and paper well records, logs, production data, well tests, and maps

Michigan Geological Survey Core Facility – Outreach and Service

K-12 educational outreach program - CoreKids

Professional outreach programs with PTTC



Making digital and historic data available on line on website

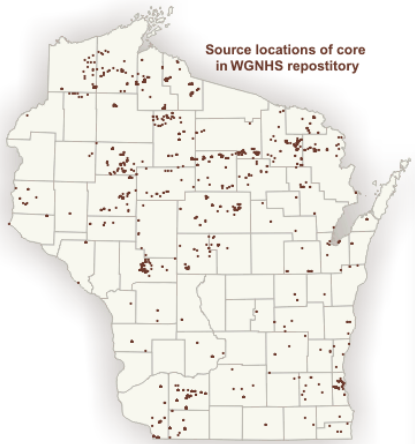
Scanning well records and digitizing historic data

UT Bureau of Economic Geology Core Research Centers

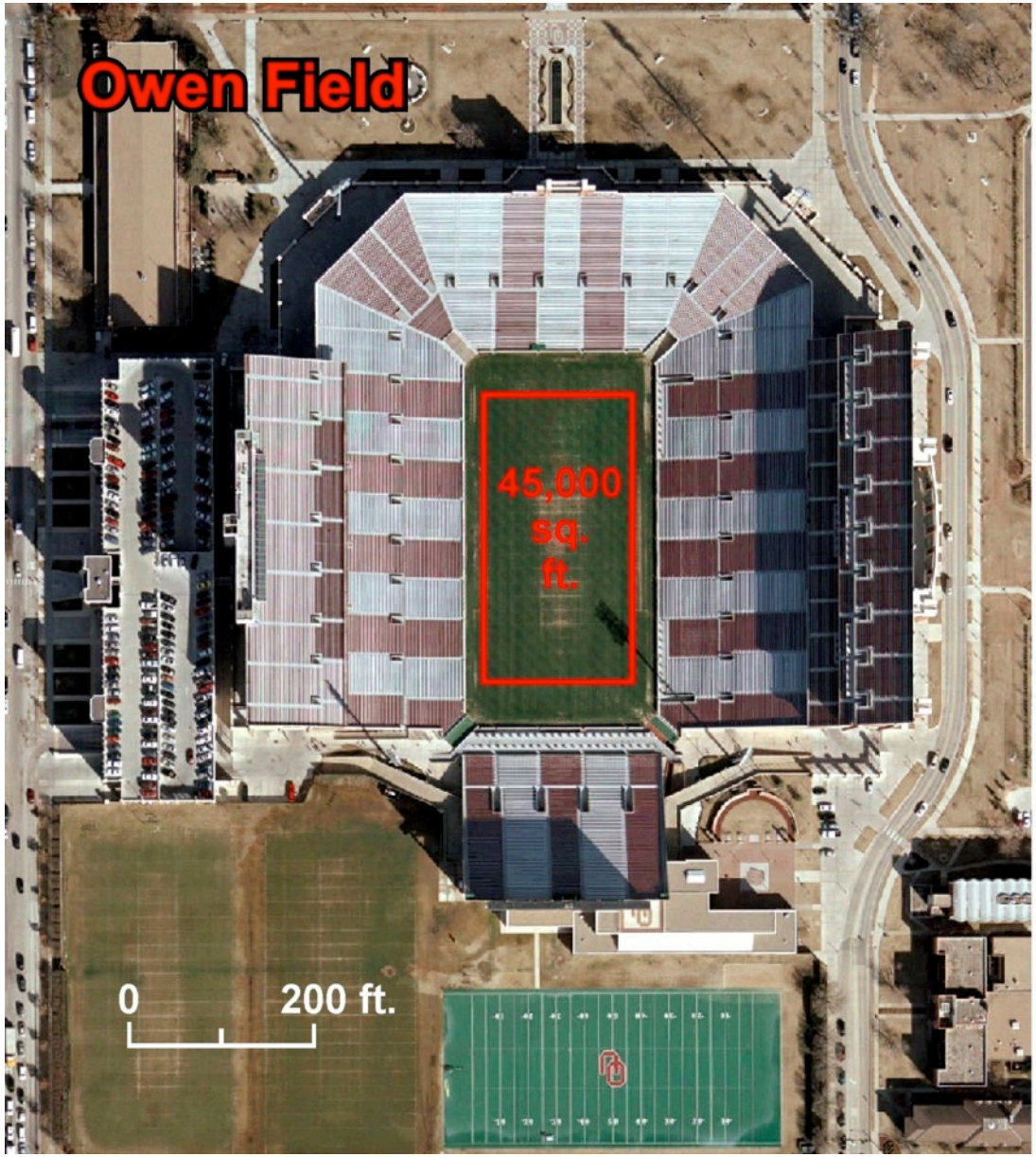
- 3 Core Research Centers – Austin, Houston and Midland
- Total Number of Boxes of Cores and Cuttings – over 2 million
- Collection accessible and searchable online (SQL database)
- Collection includes cores, cuttings, core chips, palynology samples, thin sections, and outcrop samples
- Material comes from all over U.S.
- Building a collection of analyses performed on BEG rock materials – required of patrons in past several years
- Currently have space for 125,000 additional boxes in new warehouse at Houston Research Center

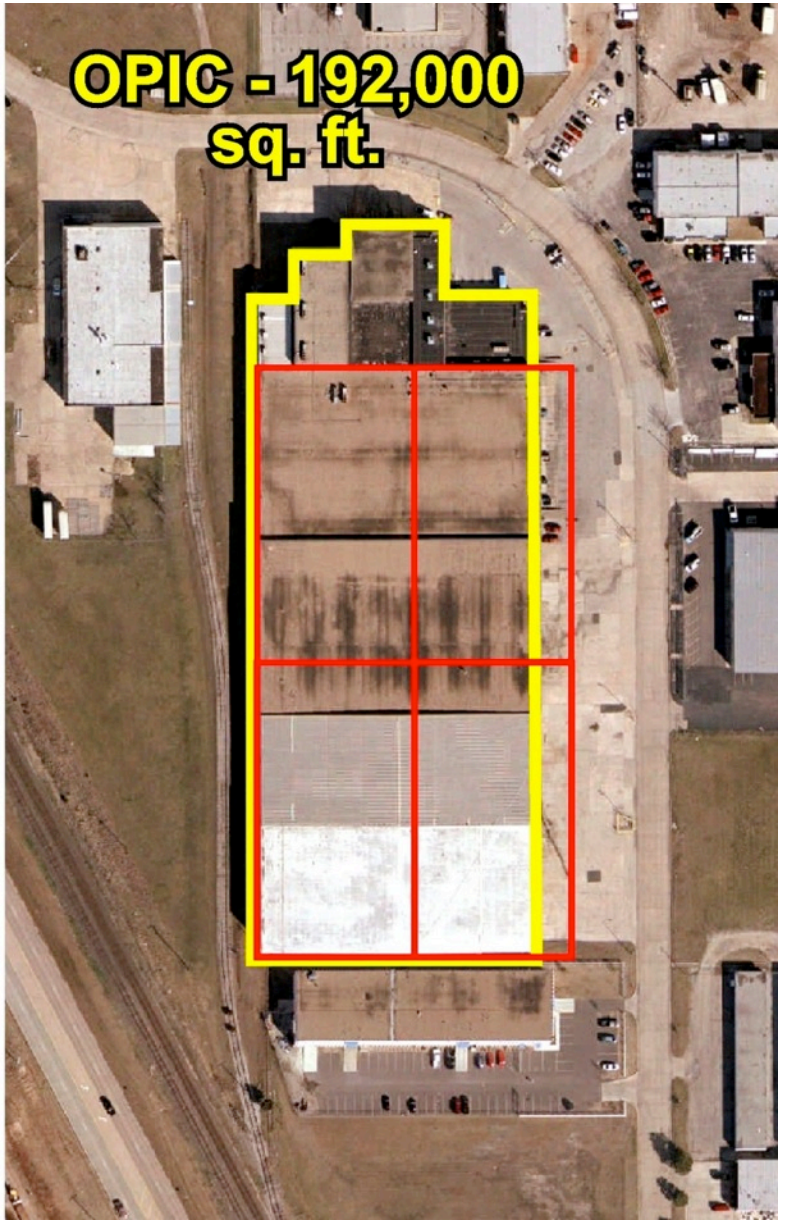
WGNHS: Mount Horeb Research Collections and Education Center

- Research Collection:
  - ~2,000 cores totaling >600,000 linear feet
  - ~11,000 cuttings sets totaling >2.5 linear feet of drilling
  - ~20,000 labeled hand samples
  - Supported by database, field notebooks, geologic logs, drilling records, thin sections and assays



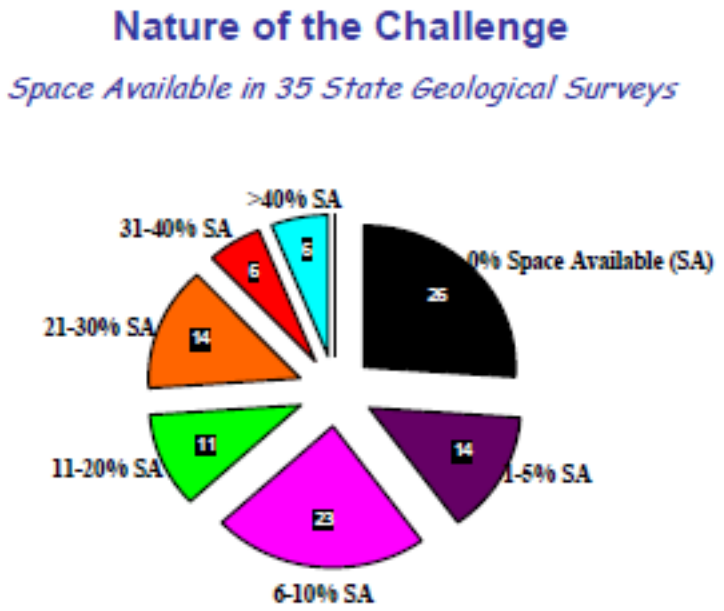
Oklahoma Geological Survey


Owen Field
45,000 sq. ft.
0
200 ft.


OPIC - 192,000 sq. ft.

Challenges

Lack of space and funding
Connecting repositories
National metadata standards for catalogs
Sharing of best practices



AASG
Association of American State Geologists