Spring 2016

Michigan Geological Repository for Research and Education News,Spring 2016

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NEWS

At the Michigan Geological Repository for Research and Education, there is always something to report. Whether it is the announcement of an upcoming workshop, the donation of new core collections or the celebration of student or faculty achievements, there is never a shortage of information to share. As such, visitors of this site are encouraged to check this page regularly to keep up to date on all MGRRE news and events.

New Potash Facility to Open Near Evart, MI

Dr. William Harrison III, MGRRE director and professor emeritus of geosciences at Western Michigan University, was recently interviewed by the Cadlillac News about plans for a new chemical extraction facility near Evart, MI. Among the benefits, Harrison states, is the activation of a local potash source for Midwest farmers; the biggest current suppliers are Canada and Russia. In addition, the creation of such a facility would present hundreds of direct and indirect employment opportunities which would, in turn, provide a boost to the local businesses in the Evart area.

Bibliography of Michigan Geology

Dr. Peter Voice, Department of Geosciences instructor and CoreKids director, has compiled a bibliography of Michigan geology listing more than 6,000 documents from all known Michigan sources, including industry, professional associations and universities. Spanning the last 195 years, this list represents published and unpublished documents about Michigan geology. The Michigan Geological Repository for Research and Education and the Michigan Geological Survey assume no publication rights; this is simply a compilation. Please contact your local library or the publication author to determine any copyright issues about duplicating the actual file/document referenced in this summary.

MGRRE and MOGA Presented Workshop

As the Michigan satellite for the Petroleum Technology Transfer Council, MGRRE presented a workshop, co-sponsored by the Michigan Oil and Gas Association, on March 16, 2016, in Mt. Pleasant, Michigan. Approximately 135 members from industry, government and education attended to hear speakers discuss undiscovered oil and gas in Michigan, subsurface geological research by MGRRE faculty and students and the field experiences of industry members.

Speakers included: Dr. Christopher Swezey, United Stated Geological Survey; Drs. William Harrison, Peter Voice and Andrew Caruthers, MGRRE; industry members Dean Bohjanen and John Fowler; and a panel of industry veterans, including Tim Baker, David Hall, Dave Maness, Lew Murray, Bill Quinlan, Rick Sandveit and Willian Strickler.

Attendees also enjoyed poster presentations by MGRRE graduate students, Bryan Currie, Jonathan Garrett, Cameron Manche, Zaid Nadhim and Matthew Rine. A highlight of the event was the presentation of MGRRE's Lifetime Achievement Award to Core Energy President, Robert G. Mannes.

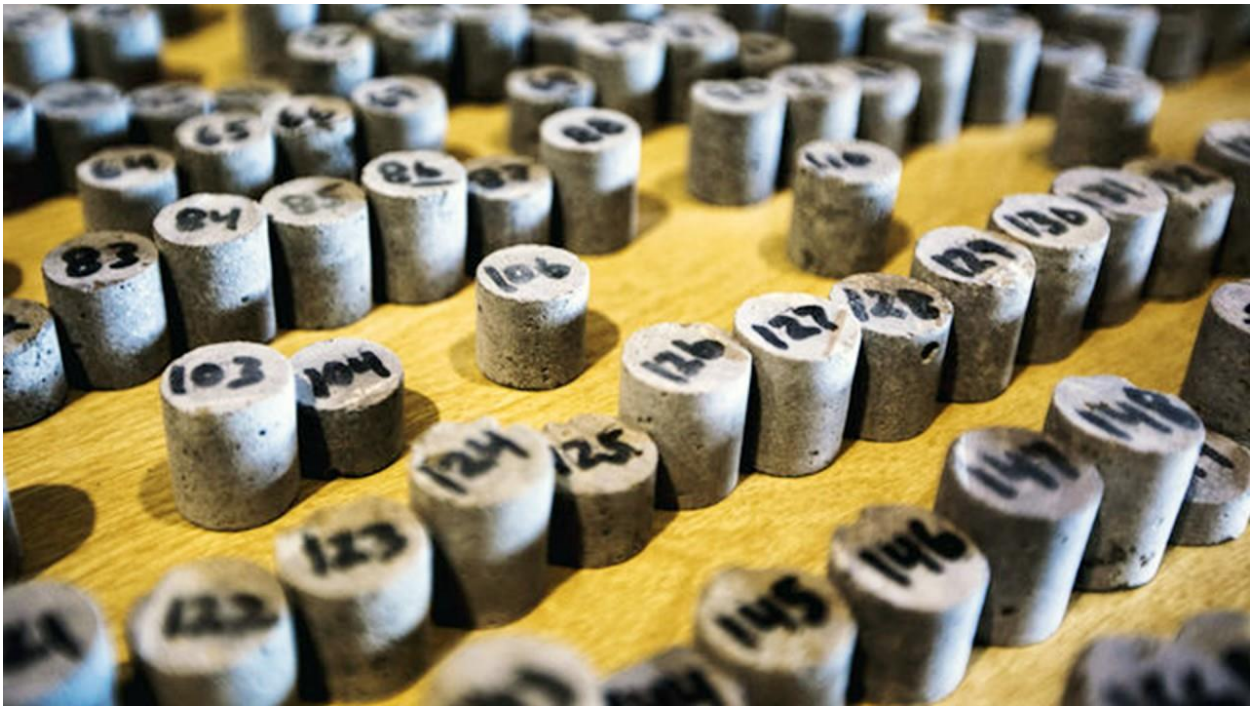
Additional Racking Constructed

Thanks to several generous donors from the oil and gas industry, MGRRE was able to add enough new racking in early 2016 to accommodate 150 more pallets of cores. Because we had very little archival space available last fall when we received some huge donations of core, we appealed to our donors to help us put up the new racking. They made it happen! Thank you to our donors and everyone who helped with the construction; now, we can archive and easily access these cores to use them in research and education.

New Core Collection

In late 2015, MGRRE was offered two large core collections that included about 30,000 feet of core. Most of these were drilled in southeastern Michigan, an area from which few subsurface samples were previously available. The newly drilled cores were donated by an engineering firm that drilled more than 230 boreholes through a seven mile long zone of shallow bedrock, including Antrim shale, the Traverse group and the Dundee limestone. These cores are in very good condition and hold raw data that can yield information for economic development and research when used by land-use planners, governmental agencies, academia, industry and developers.

MGRRE's Role in Rediscovering a Large Potash Deposit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Western Michigan University's Michigan Geological Repository for Research and Education has been receiving national attention about its work with Michigan Potash Company, the result of which has helped to rediscover a $65 billion dollar deposit here in Michigan.

Michigan's non-fuel mineral industries add $2 billion to the state's economy annually. Resources such as iron, construction and building materials, industrial and metallic minerals can be wisely used only if comprehensive and current data about their quality and distribution is available. That data comes from subsurface rock cores and samples.

The Many uses of Core and Sample Data

Some of the cores at the Michigan Geological Repository for Research and Education represent shallow materials, including glacial deposits and bedrock. These were drilled by engineering companies as part of public works projects, by the Michigan Department of Transportation for prior road and bridge work and by MGRRE researchers, such as Dr. Alan E. Kehew. These cores contain materials such as sand, gravel and limestone that are used in road building and construction. Knowing where these valuable deposits are located can help preserve them for future use. Especially in areas of dense population, these materials can no longer be produced because of surface land use.

Most of the cores archived at MGRRE were originally drilled by oil and gas companies from the 1930's through the 1980's. Coring is a very expensive technique; however, coring yields the greatest amount of potential data. Remote sensing techniques are more commonly used today, but some newer wells have been cored, largely to provide hands-on examination in new plays. Data from cores outlive their original purpose and can be used to address energy, mineral and environmental questions for this and future generations. As an example, cores archived at

MGRRE originally drilled for oil and gas exploration provided the data to assess the quality of a large Michigan potash deposit.

MGRRE's Role in Rediscovering a Large Potash Deposit

Western Michigan University's Michigan Geological Repository for Research and Education has been receiving national attention about its work with Michigan Potash Company, the result of which has helped to rediscover a $65 billion dollar deposit here in Michigan. Because the United States imports most of its potash from other countries, our Midwest farmers pay a very high price for their fertilizer. Corn and soybeans require a great deal of the product; Michigan farmers alone use 300,000 tons per year. The cost of potash includes about $40 to $60 per ton for rail transportation alone. A local Michigan source could cut that transportation cost in half by using trucks and barges.

MGRRE is proud to have assisted in this significant rediscovery. This event just shows how important it is to rescue and keep cores: cores are the source of raw data about natural resources that generate new economic development. MGRRE archived the only known cores from this vast potash deposit and provided the source for tests which confirmed its quality as the highest grade available. Dr. William Harrison, MGRRE director, and Linda Harrison, MGRRE administrator, are gearing up to study the potash deposits across the state and hope to provide a step up to an emerging large-scale industrial development.