Back to the future!

Dan Boyd, a scientist working for the Oklahoma Geological Survey, estimates Oklahoma has 68 billion barrels of oil left in the ground, and while much of this is immobile, a great deal is still producible.

But Boyd and his employer believe there's a problem blocking its production: A lack of an accessible, complete and centrally-located repository of well and production data that could help today's operators evaluate those production opportunities.

And, they have a solution to this problem: An organization called Energy Libraries Online (ELO).

ELO is dedicated to creating an online, digital library of the state's oil and natural gas well and production records.

All that's needed is sufficient funds to make that dream a reality.

A quick history

Oil production started in the Sooner State more than 100 years ago, and basically peaked 20 years after its initial discovery. More than 500,000 wells have been drilled in the last 100-plus years.

Those wells have found tens of thousands of separate oil accumulations and over 3,000 named oil fields.

That means, it is highly unlikely that untapped discoveries will be a significant component of Oklahoma's new oil production.

But recovery methods within existing fields can bring new production.

Still, today's producers are asking what methods should be used. They want to know: Would a dewatering operation be worth the expense in a given field?

To answer those questions today, oil and natural gas operators must go through seemingly-endless shelves of paper files, and boxes and filing cabinets full of strip logs, mud logs and electric logs – all kept in numerous locations.

Second-Century records

Work to create such an online digital library (ELO) by the Oklahoma City Geological Society and the Oklahoma Well Log Library already has started, thanks to more than a half-million dollars in donations from oil and gas operators, geologists, other interested individuals and companies across Oklahoma.

Even the best organized and maintained hard-copy (over)

collections cannot compare to digital databases.

In addition to their ability to archive irreplaceable documents, they bring together the many, disparate data elements that earth scientists need to evaluate subsurface oil and gas deposits.

But, for now, this new database will just hold partial information.

Ultimately, planners want the database to include scout cards, completion data, well logs (including geological sample logs, strip or driller's logs, electrical logs, and mud logs), and production data for wells in fields across the state, even wells that were drilled using cable tools.

These data will also help Oklahoma's scientists in other vital research areas, such as the study of groundwater resources, carbon sequestration and environmental quality.

Risk versus Reward

There is no shortage of challenges associated with this undertaking.

Chief among those challenges is cost.

But if this library were to lead to just a partial recovery of estimated remaining oil reserves, that could mean big bucks to the state's coffers through its gross production tax.

Professionals' Thoughts

Randy Keller, director of the Oklahoma Geological Survey, sees "ELO as the best way to make the mountains of paper data that are maintained by the Survey available to the public.

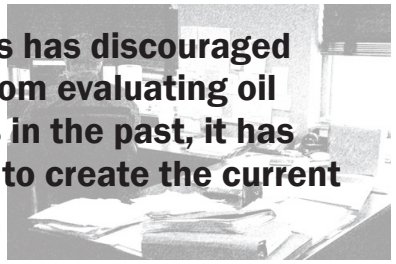
"Our partnership with ELO makes sense, but money is needed for the scanning and data entry work necessary to make these data available to the public," Keller says.

"Because neither the state, nor any of the geological society libraries are comprehensive, merging them through ELO will ultimately create the most complete collection of Oklahoma subsurface data possible.

"This will help the Survey fulfill one of its primary missions, says Keller, of organizing and making geologic data easily available to the public."

Boyd agrees.

"Historically, haphazard production reporting and data dissemination has greatly complicated efforts to systematically evaluate oil possibilities in Oklahoma," Boyd says.



"While this has discouraged operators from evaluating oil possibilities in the past, it has also helped to create the current opportunity.

"As data issues are addressed and the long-term price of oil rises, as it surely must, a large-scale re-evaluation of Oklahoma's oil reservoirs is inevitable.

"The results of such an effort have the potential to extend the life of meaningful oil production for decades beyond current estimates, which would directly and indirectly benefit every area of the state," he notes.

Photos, U.S. Library of Congress and New Dominion, LLC.

For more information about the Energy Libraries Online effort, visit their website at: http://energylibrariesonline.com/, or contact Tim Brown at 405-227-0612 or tbrown@energylibrariesonline.com.