

GAO@100 Highlights

Highlights of [GAO-21-209](#), a report to the Ranking Member of the Subcommittee on Government Operations and Border Management, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Development of oil and gas resources on federal lands helps supply the U.S. with energy and generates billions of dollars annually in revenues. To oversee this development, Interior relies on aging data systems, which it is planning to replace.

GAO was asked to review the data systems Interior uses to oversee oil and gas development on federal lands and waters. This report (1) describes how Interior uses key data systems to oversee oil and gas development on federal lands, (2) examines challenges Interior faces in using these systems, and (3) evaluates Interior's implementation of leading practices in developing requirements for replacement systems.

GAO reviewed documents, interviewed officials from federal and state agencies, visited BLM and ONRR offices in Colorado and New Mexico, and assessed Interior's implementation of relevant leading practices.

What GAO Recommends

GAO is making six recommendations, including that Interior develop a plan to improve data sharing among its key data systems and that Interior update its guidance for developing new data systems to address how program offices are to implement agile development.

Interior concurred with GAO's recommendations.

View [GAO-21-209](#). For more information, contact Frank Rusco at (202) 512-3841 or RuscoF@gao.gov, or Vijay A. D'Souza at (202) 512-6240 or DsouzaV@gao.gov

May 2021

OIL AND GAS

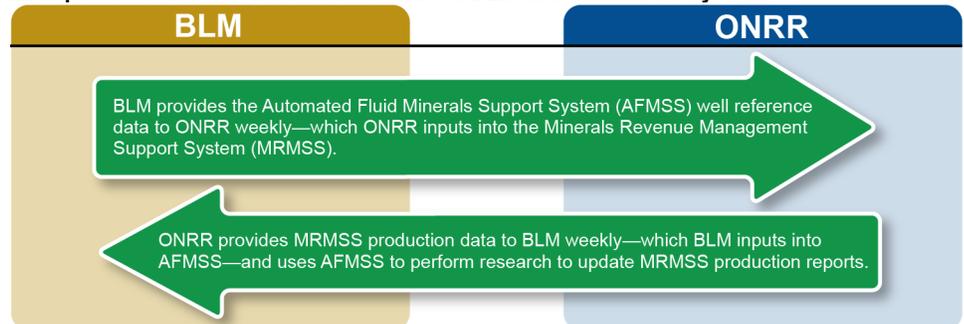
Interior Should Strengthen Management of Key Data Systems Used to Oversee Development on Federal Lands

What GAO Found

The Department of the Interior (Interior) uses three key data systems to oversee oil and gas development on leased federal lands: the Automated Fluid Minerals Support System (AFMSS), Legacy Rehost 2000 (LR2000), and the Minerals Revenue Management Support System. Interior's Bureau of Land Management (BLM) and Office of Natural Resources Revenue (ONRR) staff rely on data across these systems to carry out responsibilities such as processing permits for drilling wells and ensuring appropriate payments are made based on production.

According to agency documents and officials, limited automated sharing of data among these systems is one of four challenges. Although the systems use some of the same information, such as lease and well numbers, they do not fully connect or communicate with each other, complicating oversight. For example, GAO calculated, based on agency estimates, that ONRR spends the equivalent of approximately 10 full-time employees in staff hours every year on conversion and error correction due to fragmented systems. Best practices call for coordinating and sharing data assets across federal agencies. Though Interior is developing replacement data systems, it does not have a finalized plan to facilitate comprehensive data sharing among them. Without such a plan, Interior risks continuing to spend staff time that could be better spent on other priorities.

Example of Oil and Gas Data Shared between BLM and ONRR Data Systems



Source: GAO analysis of Bureau of Land Management (BLM) and Office of Natural Resources Revenue (ONRR) data. | GAO-21-209

Interior has not fully implemented leading practices in developing requirements to ensure the replacement systems meet user needs. Such practices have been found to improve development of federal data systems. BLM officials said they are developing replacement systems using an agile software development approach, which builds software incrementally based on users' requirements and continuously evaluates functionality, quality, and customer satisfaction. For example, BLM program offices responsible for developing systems to replace AFMSS and LR2000 stated that they meet quarterly with system stakeholders to prioritize and agree on features and functionality. However, the program offices do not have a defined process to implement the agile approach because it is not addressed in Interior's guidance on data system development. By updating the guidance to reflect how program offices can implement an agile development approach, Interior would have better assurance that its new data systems will function as intended to meet user needs and reduce budget and schedule risks.