Testimony
Before the Committee on Oversight and Government Reform, House of Representatives

OIL AND GAS MANAGEMENT
Past Work Offers Insights to Consider in Restructuring Interior's Oversight

Statement of Frank Rusco, Director
Natural Resources and Environment
OIL AND GAS MANAGEMENT

Past Work Offers Insights to Consider in Restructuring Interior’s Oversight

What GAO Found

GAO’s recent evaluations of federal oil and gas management have identified key areas where Interior could provide more effective oversight, including:

- In October 2008, GAO reported that Interior policies and practices for leasing offshore and onshore oil and gas differed in key ways. Considering the ways that areas are selected for leasing, GAO found that MMS sets out a 5-year strategic plan identifying both a leasing schedule and the offshore areas it will lease. In contrast, BLM relies on industry and others to nominate onshore areas for leasing, then selects lands to lease from these nominations and from areas it has identified.

- Oil and gas activity has generally increased in recent years, and Interior has at times been unable to meet its legal and agency mandated oversight obligations in key areas. For example, in a June 2005 report, GAO found that Interior was unable to complete its environmental inspections because of increased onshore drilling activity. GAO also found in a September 2008 review that Interior was not consistently completing inspections to verify oil and gas volumes produced from federal leases. GAO found in a March 2010 report that MMS faces challenges conducting required environmental reviews in Alaska. In particular, MMS has no handbook providing guidance on how to conduct these reviews, although Interior policy directs it to prepare one.

- Interior may be missing opportunities to fundamentally shift the terms of federal oil and gas leases and increase revenues. In a September 2008 report, GAO reported that, compared to other countries, the United States receives one of the lowest shares of revenue for oil and gas. In addition, Interior's royalty rate, which does not change to reflect changing prices and market conditions, has at times led to pressure on Interior and Congress to periodically change royalty rates in response to market conditions. Interior also has done less than some states and private landowners to encourage lease development and may be missing opportunities to increase production revenues. Interior began studying ways to improve revenue collection and leasing practices earlier this year.

- Interior’s oil and gas IT systems lack key functionalities. A September 2008 GAO review found that MMS’s ability to maintain the accuracy of oil and gas production and royalty data was hampered by two key limitations in its IT system: (1) it did not limit companies’ ability to adjust self-reported data after MMS had audited them and (2) it did not identify missing royalty reports. More recently, a March 2010 report found that Interior’s long-standing efforts to implement two key technologies for verifying oil and gas production are behind schedule and years from widespread adoption.
Mr. Chairman and Members of the Committee:

We appreciate the opportunity to participate in this hearing to discuss the Department of the Interior’s management of federal oil and gas leases and its proposed reorganization. Effective management and oversight of our nation’s oil and gas resources is critical, especially in light of the tragic loss of life, damage to natural resources, loss of livelihoods, and harm to local economies that resulted from the explosion, fire, and catastrophic oil spill in the Gulf of Mexico. Additionally, ensuring royalties are accurately paid on oil and gas production is increasingly important as our country faces serious fiscal challenges.

Interior plays an important role in managing federal oil and gas resources. Under the current organizational structure, its bureaus are responsible for regulating the processes that oil and gas companies must follow when leasing, drilling, and producing oil and gas from federal leases as well as ensuring that companies comply with all applicable requirements. Specifically, the Bureau of Land Management (BLM) oversees onshore federal oil and gas activities, and the newly created Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) oversees offshore oil and gas activities.¹ Prior to BOEMRE, the Minerals Management Service’s (MMS) Offshore Energy and Minerals Management (OEMM) oversaw offshore oil and gas activities. Additionally, MMS’s Minerals Revenue Management (MRM) was responsible for collecting royalties on oil and gas produced from both onshore and offshore federal leases. For the purposes of our testimony today, we present our findings in accordance with Interior’s organizational structure prior to the establishment of BOEMRE. In fiscal year 2009, Interior reported collecting over $9 billion in royalties for oil and gas produced on federal lands and waters, purchase bids for new oil and gas leases, and annual rents on existing leases, making revenues from federal oil and gas one of the largest nontax sources of federal government funds.

In recent years, we and others, including Interior’s Office of Inspector General (OIG) have conducted numerous evaluations of federal oil and gas management and revenue collection processes and practices and have found many material weaknesses (see app. II for related GAO reports). Our work has included reviews of Interior’s oversight practices, operations, and rules, and our conclusions have been remarkably

¹Secretarial Order 3302, issued June 18, 2010, renamed the Minerals Management Service.
consistent: the agency has not done enough to meet the challenges it faces. Others, including the Interior OIG and a panel of experts convened by Interior have drawn similar conclusions. As a result, Interior staff are in the midst of attempting to implement over 100 recommendations spanning the scope of the department’s operations. We acknowledge Interior’s efforts to reassess key oil and gas policies addressing revenue collection and rates of development on federal lands and waters as an important first step to address material weaknesses. In addition, the Secretary of the Interior announced several changes to BLM’s leasing process in May 2010, and has also announced plans to restructure MMS.

In this context, my testimony today discusses findings from our past work on (1) differences in Interior’s policies and practices for offshore and onshore oil and gas leasing, (2) Interior’s oversight of oil and gas production, (3) Interior’s policies to encourage revenues from oil and gas development, and (4) Interior’s oil and gas information technology (IT) systems. This statement is based on our extensive body of work on Interior’s oil and gas leasing and royalty collection programs issued from June 2005 through March 2010, as well as preliminary results from our ongoing review on public challenges to federal onshore oil and gas leasing decisions, to assist the committee as it investigates Interior’s oversight of oil and gas leasing, drilling, and production. We developed these preliminary results from June 2009 through July 2010 by reviewing federal laws, regulations, and guidance; analyzing data from Interior on the four Mountain West states (Colorado, New Mexico, Utah, and Wyoming) responsible for 69 percent of the oil and 94 percent of the natural gas produced on federal lands during fiscal years 2007 to 2009; and interviewing BLM officials and stakeholder groups—including representatives from the energy industry, state government, and nongovernmental organizations representing environmental, hunting, fishing, and recreational interests. We conducted the performance audit work that supports this statement in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to produce a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our statement today.

\[\text{We assessed the reliability of these data and found them to be sufficiently reliable for our purposes.}\]
In October 2008, we reported that Interior’s policies and practices for identifying and evaluating lease parcels and bids differ in key ways depending on whether the lease is located offshore—and therefore overseen by OEMM—or onshore—and therefore overseen by BLM.¹

**Identifying lease parcels.** OEMM’s and BLM’s methods for identifying areas to lease vary significantly. Specifically:

- For offshore leases, OEMM—pursuant to the Outer Continental Shelf Lands Act—lays out 5-year strategic plans for the areas it plans to lease and establishes a schedule for offering leases. In addition, OEMM offers all leases for competitive bidding, and all eligible companies may submit written sealed bids, referred to as bonus bids, for the rights to explore, develop, and produce oil and gas resources on these leases, including drilling test wells.

- For onshore leases, BLM—which must follow the Federal Onshore Oil and Gas Leasing Reform Act of 1987—is not required to develop a long-term leasing plan and instead relies in part on the industry and the public to nominate areas for leasing. In some cases, BLM, like OEMM, offers leases through a competitive bidding process, but with bonus bids received in an oral auction rather than in a sealed written form.

**Evaluating bids.** OEMM and BLM differ in their regulations and policies for evaluating whether the bids received for areas offered for lease are sufficient.

- For offshore leases, OEMM compares sealed bids with its own independent assessment of the value of the potential oil and gas in each lease. After the bids are received, OEMM—using a team of geologists, geophysicists, and petroleum engineers assisted by a software program—conducts a technical assessment of the potential oil and gas resources associated with the lease and other factors to develop an estimate of their fair market value. This estimate becomes the minimally acceptable bid and is used to evaluate the bids received. The bidder submitting the highest acceptable bonus bid that meets or exceeds OEMM’s estimate of the fair market value of a lease is awarded the lease. The primary term of the lease, which may be 5, 8, or 10 years, depends on the water depth of the leased area. If no bids equal or exceed the minimally acceptable bid, the

lease is not awarded but is offered at a subsequent lease sale. According to OEMM, since 1995, the practice of rejecting bids that fall below the minimally acceptable bid and re-offering these leases at a later sale has resulted in an overall increase in bonus receipts of $373 million between 1997 and 2006.

- For onshore leases, BLM relies exclusively on competitors, participating in an oral auction, to determine the lease’s market value. Furthermore, BLM, unlike OEMM, does not currently employ a multidisciplinary team with the appropriate range of skills or appropriate software to develop estimates of the oil and gas reserves for each lease parcel, and thus, establish a market and resource-based minimum acceptable bid. Instead, BLM has established a uniform national minimum acceptable bid of at least $2 per acre and has taken the position that as long as at least one bid meets this $2 per acre threshold, the lease will be awarded to the highest bidder. Importantly, onshore leases that do not receive any bids in the initial offer are available noncompetitively the day after the lease sale and remain available for leasing for a period of 2 years after the competitive lease sale. Any of these available leases may be acquired on a first-come, first-served basis subject to payment of an administrative fee. Prior to 1992, BLM offered primary terms of 5 years for competitively sold leases and 10 years for leases issued noncompetitively. Since 1992, BLM has been required by law to only offer leases with 10-year primary terms whether leases are sold competitively or issued noncompetitively.

Oil and gas activity has generally increased over the past 20 years, and our reviews have found that Interior has—at times—been unable to adequately oversee these activities: (1) completing environmental inspections; (2) verifying oil and gas production; (3) hiring, training, and retaining staff; (4) using categorical exclusions to streamline environmental analyses required for certain oil and gas activities;4 (5) performing environmental monitoring in accordance with land use plans; (6) conducting environmental analyses; and (7) responding to onshore lease protests. Specifically:

4In addressing long-term energy challenges, Congress enacted the Energy Policy Act of 2005, in part to expedite oil and gas development within the United States. This law authorizes BLM, for certain oil and gas activities, to approve projects without preparing new environmental analyses that would normally be required by the National Environmental Protection Act.
Completing environmental inspections. In June 2005, we reported that with the increase in oil and gas activity, BLM had not consistently been able to complete its required environmental inspections—the primary mechanism to ensure that companies are complying with various environmental laws and lease stipulations. At the time of our review, BLM officials explained that because staff were spending increasing amounts of time processing drilling permits, they had less time to conduct environmental inspections.

Verifying oil and gas production. In September 2008, we reported that neither BLM nor OEMM was meeting its statutory obligations or agency targets for inspecting certain leases and metering equipment used to measure oil and gas production, raising uncertainty about the accuracy of oil and gas measurement. For onshore leases, BLM only completed a portion of its production verification inspections because its workload had substantially grown in response to increases in onshore drilling. For offshore leases, OEMM only completed about 50 percent of its required production inspections in 2007 because of ongoing cleanup work related to Hurricane Katrina and Rita. Additionally, in March 2010, we found that Interior had not consistently updated its oil and gas measurement regulations. Specifically, OEMM has routinely reviewed and updated its measurement regulations, whereas BLM had not. Accordingly, OEMM had updated its measurement regulations six times since 1998, whereas BLM had not updated its measurement regulations since 1989. We made a number of recommendations to the Secretary of the Interior for improving oil and gas production verification, including providing for more regular updates of measurement regulations.

Hiring, training, and retaining staff. In March 2010, we reported that Interior has faced difficulties in hiring, retaining, and training staff in key oil and gas oversight positions. Specifically, we found that staff within

---

5 GAO, Oil and Gas Development: Increased Permitting Activity Has Lessened BLM’s Ability to Meet Its Environmental Protection Responsibilities, GAO-05-418 (Washington, D.C.: June 17, 2005).


7 GAO, Oil and Gas Management: Interior’s Oil and Gas Production Verification Efforts Do Not Provide Reasonable Assurance of Accurate Measurement of Production Volumes, GAO-10-313 (Washington, D.C.: Mar. 15, 2010).

8 GAO-10-313.
Interior's program for verifying that oil and gas produced from federal leases are correctly measured—including petroleum engineers and inspectors—lacked critical skills because, according to agency officials, Interior (1) had difficulty in hiring experienced staff, (2) struggled to retain staff, and (3) did not consistently provided the appropriate training for staff. Interior's challenges in hiring and retaining staff stem, in part, from competition with the oil and gas industry, which generally pays significantly more than the federal government. Moreover, key technical positions responsible for oversight of oil and gas activities have experienced high turnover rates, which, according to Interior officials, impede these employees' capacity to oversee oil and gas activities. These positions included petroleum engineers, who process drilling permits and review oil and gas metering systems, and inspection staff—including BLM’s petroleum engineer technicians and production accountability technicians onshore—who conduct drilling, safety and oil and gas production verification inspections (see app. 1). For example, we found that turnover rates for OEMM inspectors at the four district offices we reviewed between 2004 and 2008 ranged from 27 to 44 percent. Furthermore, Interior has not consistently provided training to the staff it has been able to hire and retain. For example, neither onshore nor offshore petroleum engineers had a requirement for training on the measurement of oil and gas, which is critical to accurate royalty collections and can be challenging at times because of such factors as the type of meter used, the specific qualities of the gas or oil being measured, and the rate of production. Additionally, although BLM offers a core curriculum for its petroleum engineer technicians and requires that they obtain official BLM certification and then be recertified once every 5 years to demonstrate continued proficiency, the agency has not offered a recertification course since 2002, negatively impacting its ability to conduct inspections. It is important to note that BLM’s petroleum engineer technicians are the eyes and ears for the agency—performing key functions and also perhaps the only Interior staff with direct contact with the lease property itself. We recommended that the Secretary of the Interior improve its training for staff responsible for verifying oil and gas production and to determine what policies are necessary to attract and retain qualified measurement staff at sufficient levels to ensure an effective production verification program.

- **Using categorical exclusions.** In September 2009, we reported that BLM’s use of categorical exclusions—authorized under section 390 of the Energy Policy Act of 2005 to streamline the environmental analysis required under
the National Environmental Policy Act (NEPA)\textsuperscript{9} when approving certain oil and gas activities—had some benefits but raises numerous questions about how and when BLM should use these categorical exclusions.\textsuperscript{10} First, our analysis found that BLM used section 390 categorical exclusions to approve over one-quarter of its applications for drilling permits from fiscal years 2006 to 2008. While these categorical exclusions generally increased the efficiency of operations, some BLM field offices, such as those with recent environmental analyses already completed, were able to benefit more than others. Second, we found that BLM’s use of section 390 categorical exclusions was frequently out of compliance with both the law and agency guidance and that a lack of clear guidance and oversight by BLM were contributing factors. We found several types of violations of the law, such as approving more than one oil or gas well under a single decision document and drilling a new well after statutory time frames had lapsed. We also found examples, in 85 percent of field offices reviewed, where officials did not comply with agency guidance, most often by failing to adequately justify the use of a categorical exclusion. While many of these violations and noncompliance were technical in nature, others were more significant and may have thwarted NEPA’s twin aims of ensuring that BLM and the public are fully informed of environmental consequences of BLM’s actions. Third, we found that a lack of clarity in both section 390 of the act and BLM’s guidance has raised serious concerns. Specifically: (1) Fundamental questions about what section 390 categorical exclusions are and how they should be used have led to concerns that BLM may be using these categorical exclusions in too many—or too few—instances. For example, there is disagreement as to whether BLM must screen section 390 categorical exclusions for circumstances that would preclude their use or whether their use is mandatory. (2) Concerns about key concepts underlying the law’s description of these categorical exclusions have arisen—specifically, whether section 390 categorical exclusions allow BLM to exceed development levels, such as number of wells to be drilled, analyzed in supporting NEPA documents without conducting further analysis. (3) Definitions of key criteria in the law and BLM guidance are vague or nonexistent, which led to varied interpretations among field offices and concerns about misuse and a lack of transparency. We recommended that BLM take steps to improve the implementation of section 390 of the act by ensuring compliance through more oversight,


standardizing decision documentation, and clarifying agency guidance. We also suggested that Congress may wish to consider amending the Energy Policy Act of 2005 to clarify and resolve some of the key issues identified in our report. Since the issuance of our report, BLM has taken steps to implement some of our recommendations.\footnote{On May 17, 2010, BLM issued an Instruction Memorandum that provides amended instructions for using some of the section 390 categorical exclusions, requires review of the circumstances for use of any of section 390 categorical exclusions, seeks to ensure all actions approved through the use of a section 390 categorical exclusion are in conformance with the approved land-use plan, and provides some general guidelines for ensuring compliance with NEPA.}

- \textit{Performing environmental monitoring}. In June 2005, we reported that four of the eight BLM field offices we visited had not developed any resource monitoring plans to help track management decisions and determine if desired outcomes had been achieved, including those related to mitigating the environmental impacts of oil and gas development.\footnote{GAO-05-418.} We concluded that without these plans, land managers may be unable to determine the effectiveness of various mitigation measures attached to drilling permits and decide whether these measures need to be modified, strengthened, or eliminated. Officials offered several reasons for not having these plans, including increased workload due to an increased number of drilling permits, as well as budget constraints.

- \textit{Conducting environmental analyses}. In March 2010, we found that MMS faces challenges in the Alaska Outer Continental Shelf (OCS) Region in conducting reviews of oil and gas development under NEPA, which requires MMS to evaluate the likely environmental effects of proposed actions, including oil and gas development.\footnote{GAO, Offshore Oil and Gas Development: Additional Guidance Would Help Strengthen the Minerals Management Service’s Assessment of Environmental Impacts in the North Aleutian Basin, \textit{GAO}-10-276, (Washington, D.C.: Mar. 8, 2010).} Although Interior policy directed its agencies to prepare handbooks providing guidance on how to implement NEPA, we found that MMS lacked such a handbook. The lack of comprehensive guidance in a handbook, combined with high staff turnover in recent years, left the process for meeting NEPA requirements ill defined for the analysts charged with developing NEPA documents. It also left unclear MMS’s policy on what constitutes a significant environmental impact as well as its procedures for conducting and documenting NEPA-required analyses to address environmental and cultural sensitivities, which have often been the topic of litigation over
Alaskan offshore oil and gas development. We also found that the Alaska OCS Region shared information selectively, a practice that was inconsistent with agency policy, which directed that information, including proprietary data from industry, be shared with all staff involved in environmental reviews. According to regional MMS staff, this practice has hindered their ability to complete sound environmental analyses under NEPA. We recommended that the Secretary of the Interior develop and set a deadline for issuing a comprehensive NEPA handbook providing guidance on how to implement NEPA.

- **Responding to lease protests.** In preliminary results from our ongoing work on public challenges to BLM’s federal oil and gas lease sale decisions in the four Mountain West states responsible for most onshore federal oil and gas development, we found the extent to which BLM made publicly available information related to public protests filed during the leasing process varied by state and was generally limited in scope. We also found that stakeholders—nongovernmental organizations representing environmental, recreational, and hunting interests that filed protests to BLM lease offerings—wanted additional time to participate in the leasing process and more information from BLM about its leasing decisions. In May 2010, the Secretary of the Interior announced several agencywide leasing reforms that are to take place at BLM, some of which may address concerns raised by these stakeholder groups. For instance, BLM state offices are to provide an additional public review and comment opportunity during the leasing process. They are also required to post on their Web sites their responses to letters filed in protest of state office decisions to offer specific parcels of land for oil and gas development.
In our past work, we have identified several areas where Interior may be missing opportunities to increase revenue by fundamentally shifting the terms of federal oil and gas leases. As we reported in September 2008, (1) federal oil and gas leasing terms currently result in the U.S. government receiving one of the smallest shares of oil and gas revenue when compared to other countries and (2) Interior’s inflexible royalty rate structure has put pressure on Interior and Congress to periodically change royalty rates.\textsuperscript{14} We also reported that Interior is doing far less than some states to encourage development of leases.\textsuperscript{15} Specifically:

- The U.S. government receives one of the lowest shares of revenue for oil and gas resources compared with other countries and resource owners. For example, we reported the results of a private study in 2007 showing that the revenue share the U.S. government collects on oil and gas produced in the Gulf of Mexico ranked 93rd lowest of the 104 revenue collection regimes around the world covered by the study. Further, the study showed that some countries recently increased their shares of revenues as oil and gas prices rose and, as a result, will collect between an estimated $118 billion and $400 billion, depending on future oil and gas prices. However, despite significant changes in the oil and gas industry over the past several decades, we found that Interior has not systematically re-examined how the U.S. government is compensated for extraction of oil and gas for over 25 years.

- Since 1980—in part due to Interior’s inflexible royalty rate structure—Congress and Interior have been pressured, with varying success—to periodically adjust royalty rates to respond to current market conditions. For example, in 1980, a time when oil prices were high compared to today’s prices, in inflation-adjusted terms, Congress passed a windfall profit tax, which it later repealed in 1988 after oil prices fell significantly from their 1980 level. Later, in November 1995—during a period with relatively low oil and gas prices—the federal government enacted the Outer Continental Shelf Deep Water Royalty Relief Act (DWRRA) which provided for “royalty relief,” the suspension of royalties on certain volumes of initial production, for certain leases in the Gulf of Mexico in depths greater than 200 meters during the 5 years after passage of the act—1996 through 2000. For leases issued during these 5 years, litigation established that MMS lacked the authority under the act to impose


\textsuperscript{15}GAO-09-74.
thresholds. As a result, companies are now receiving royalty relief even though prices are much higher than at the time the DWRRA was enacted. In June 2008, we estimated that future foregone royalties from all the DWRRA leases issued from 1996 through 2000 could range widely—from a low of about $21 billion to a high of $53 billion. Finally, in 2007, the Secretary of the Interior twice increased the royalty rate for future Gulf of Mexico leases. In January, the rate for deep-water leases was raised to 16-2/3 percent. Later, in October, the rate for all future leases in the Gulf, including those issued in 2008, was raised to 18-3/4 percent. Interior estimated these actions will increase federal oil and gas revenues by $8.8 billion over the next 30 years. The January 2007 increase applied only to deep-water Gulf of Mexico leases; the October 2007 increase applied to all water depths in the Gulf of Mexico.

We concluded that these royalty rate increases appeared to be a response by Interior to the high prices of oil and gas that have led to record industry profits and raised questions about whether the existing federal oil and gas fiscal system gives the public an appropriate share of revenues from oil and gas produced on federal lands and waters. Furthermore, the royalty rate increases do not address industry profits from existing leases. Existing leases, with lower royalty rates, will likely remain highly profitable as long as they produce oil and gas or until oil and gas prices fall significantly. In addition, in choosing to increase royalty rates, Interior did not evaluate the entire oil and gas fiscal system to determine whether these increases were sufficient to balance investment attractiveness and appropriate returns to the federal government for oil and gas resources. On the other hand, according to Interior, it did consider factors such as industry costs for outer continental shelf exploration and development, tax rates, rental rates, and expected bonus bids. Further, because the new royalty rates are not flexible with respect to oil and gas prices, Interior and Congress may again be under pressure from industry or the public to further change the royalty rates if and when oil and gas prices either fall or rise. Finally, these past royalty changes only affect Gulf of Mexico leases and do not address onshore leases. To address weaknesses in Interior’s royalty program, we suggested that Congress may wish to consider directing the Secretary of the Interior to

• convene an independent panel to perform a comprehensive review of the
  federal oil and gas fiscal system\textsuperscript{17} and

• direct MMS and other relevant agencies within Interior to establish
  procedures for periodically collecting data and information and
  conducting analyses to determine how the federal government take and
  the attractiveness for oil and gas investors in each federal oil and gas
  region compare to those of other resource owners and report this
  information to Congress.\textsuperscript{18}

Interior officials recently reported that the department is currently
undertaking an examination of this issue.

• OEMM and BLM vary in the extent to which they encourage development
  of federal leases, and both agencies do less than some states and private
  landowners to encourage lease development. As a result, we concluded
  that Interior may be missing opportunities to increase domestic oil and gas
  production and revenues. Specifically, in the Gulf of Mexico, OEMM varies
  the lease length in accordance with the depth of water over which the
  lease is situated. For example, leases issued in shallow water depths
typically have terms of 5 years, whereas leases in the deepest areas of the
Gulf of Mexico have 10-year primary terms. This is because shallower
water tends to be nearer to shore and to be adjacent to already developed
areas with pipeline infrastructure in place, while deeper water tends to be
further out, have less available infrastructure to link to, and generally
present greater challenges associated with the depth of the wells
themselves. In contrast to OEMM’s depth-based lease terms, BLM issues
leases with 10-year primary terms, regardless of whether the lease is
adjacent to a fully developed field with the necessary pipeline
infrastructure to carry the product to market or in a remote location with
no surrounding infrastructure. Furthermore, BLM also uses 10-year
primary terms in the National Petroleum Reserve-Alaska, where it is
significantly more difficult to develop oil fields because of factors
including the harsh environment.

We also examined selected states and private landowners that lease land
for oil and gas development and found that some do more than Interior to
encourage lease development. For example, to provide a greater financial
incentive to develop leased land, the state of Texas allows lessees to pay a

\textsuperscript{17}GAO-08-691.
\textsuperscript{18}GAO-09-74.
20 percent royalty rate for the life of the lease if production occurs in the first 2 years of the lease, as compared to 25 percent if production occurs after the 4th year. In addition, we found that some states and private landowners also do more to structure leases to reflect the likelihood of finding oil and gas. For example, New Mexico issues shorter leases and can require lessees to pay higher royalties for properties that are in or near known producing areas, and allow longer leases and lower royalty rates in areas believed to be more speculative. Officials from one private landowners’ association told us that they too are using shorter lease terms, ranging from 6 months to 3 years, to ensure that lessees are diligent in developing any potential oil and gas resources on their land. Louisiana and Texas also issue 3-year onshore leases. While the existence of lease terms that appear to encourage faster development of some oil and gas leases suggests a potential for the federal government to take steps, it is important to note that it can take several years to complete the required environmental analyses needed in order to receive approval to begin drilling on federal lands. To address what we believe are key weaknesses in Interior’s royalty program while acknowledging potential differences between federal, state, and private leases, we recommended that the Secretary of the Interior develop a strategy to evaluate options to encourage faster development of oil and gas leases on federal lands, including determining whether methods to differentiate between leases according to the likelihood of finding economic quantities of oil or gas and whether some of the other methods states use could effectively be employed, either across all federal leases or in a targeted fashion. In so doing, Interior should identify any statutory or other obstacles to using such methods and report the findings to Congress. Interior officials recently reported that the department is currently undertaking an examination of this issue.
Weaknesses Exist in Interior’s IT Systems for Managing Oil and Gas Royalty and Production Information

Our past work has identified shortcomings in Interior’s IT systems for managing oil and gas royalty and production information. In September 2008, we reported that Interior’s oil and gas IT systems did not include several key functionalities, including (1) limiting a company’s ability to make adjustments to self-reported data after an audit had occurred and (2) identifying missing royalty reports.¹⁹

• **MMS's ability to maintain the accuracy of production and royalty data has been hampered because companies can make adjustments to their previously entered data without prior MMS approval.** Companies may legally make changes to both royalty and production data in MMS's royalty IT system for up to 6 years after the initial reporting month, and these changes may necessitate changes in the royalty payment. However, at the time of our review, MMS's royalty IT system allowed companies to make adjustments to their data beyond the allowed 6-year time frame. As a result of the companies’ ability to make these retroactive changes, within or outside of the 6-year time frame, the production data and required royalty payments could change over time—even after MMS completes an audit—complicating efforts by agency officials to reconcile production data and ensure that the proper royalties were paid.

• **MMS's royalty IT system’s inability to automatically detect instances when a royalty payor fails to submit the required royalty report in a timely manner.** Because MMS’s royalty system did not detect instances when a payor failed to submit a payment in a timely manner, we found that cases in which a company stops filing royalty reports and stops paying royalties may not be detected until more than 2 years after the initial reporting date, when MMS’s royalty IT system completes a reconciliation of volumes reported on the production reports with the volumes on their associated royalty reports. Therefore, it was possible under MMS's strategy that the royalty IT system would not identify instances in which a payor stopped reporting until several years after the report is due. This created an unnecessary risk that MMS was not collecting accurate royalties in a timely manner.

To address these weaknesses, we recommended that the Secretary of the Interior, among other things

- finalize the adjustment line monitoring specifications for modifying its royalty IT system and fully implement the IT system so that MMS can

¹⁹GAO-08-893R.
monitor adjustments made outside the 6-year time frame, and ensure that any adjustments made to production and royalty data after compliance work has been completed are reviewed by appropriate staff, and

- develop processes and procedures by which MMS can automatically identify when an expected royalty report has not been filed in a timely manner and contact the company to ensure it is complying with both applicable laws and agency policies.

Since September 2008, MMS has made improvements in its IT systems for identifying missing royalty reports, but it is too early to assess their effectiveness.

Additionally, in July 2009, we reported that MMS's IT system lacked sufficient controls to ensure that royalty payment data were accurate.\(^\text{20}\) While much of the royalty data we examined from fiscal years 2006 and 2007 were reasonable, we found significant instances where data were missing or appeared erroneous. For example, we examined gas leases in the Gulf of Mexico and found that, about 5.5 percent of the time, lease operators reported production, but royalty payors did not submit the corresponding royalty reports, potentially resulting in $117 million in uncollected royalties. We also found that a small percentage of royalty payors reported negative royalty values, something that should not happen, potentially costing $41 million in uncollected royalties. In addition, royalty payors claimed gas processing allowances 2.3 percent of the time for unprocessed gas, potentially resulting in $2 million in uncollected royalties. Furthermore, we found significant instances where royalty payor-provided data on royalties paid and the volume and or the value of the oil and gas produced appeared erroneous because they were outside the expected ranges. To address control weaknesses, we made a number of recommendations to MMS intended to improve the quality of royalty data by improving its IT systems' edit checks, among other things.

Moreover, in our March 2010 report, we found that Interior's longstanding efforts to implement two key IT systems for facilitating verification of produced volumes of oil and gas from federal leases were behind schedule and years from widespread adoption.\(^\text{21}\) For example, Interior's efforts to


\(^\text{21}\)GAO-10-313.
provide its inspection staff with mobile computing capabilities for use in the field are moving slowly and are years from full implementation. Interior inspectors continue to rely on documenting inspection results on paper, and later reentering these results into Interior databases. Specifically, BLM and OEMM are independently developing the capacity for inspection staff to (1) electronically document inspection results and (2) access reference documents, such as American Petroleum Institute standards and measurement regulations, via laptops while in the field. BLM initiated work on developing this capacity in 2001, whereas OEMM is now in the preliminary planning stages of a similar effort. According to Interior officials, widespread implementation of a mobile computing tool to assist with production verification and other types of inspections, potentially including drilling and safety, is still several years away. Interior officials said having such a tool would allow inspection staff to not only easily reference technical documents while conducting inspections to verify compliance with regulations but also to document the results of those inspections while in the field and subsequently upload them to Interior databases. Similarly, BLM’s efforts to use gas production data acquired remotely from gas wells through its Remote Data Acquisition for Well Production (RDAWP) program to facilitate production inspections have shown few results after 5 years of funding and at least $1.5 million spent. At the time of our review, we found that BLM was only receiving production data from approximately 50 wells via this program, and it had yet to use the data to complete a production inspection, making it difficult to assess its utility. To address these shortcomings, we made a number of recommendations to the Secretary including that BLM reassess its current commitment to the RDAWP program in light of other commercially available software and to implement a mobile computing solution for the onshore inspection and enforcement staff and to coordinate with the offshore inspection and enforcement staff as appropriate.

In conclusion, over the past several years, we and others have found Interior to be in need of fundamental reform. This past work has found weaknesses across a wide range of Interior’s oversight of onshore and offshore oil and gas development. Secretary Salazar has taken notable steps to begin comprehensive evaluations of leasing rules and practices as well as the amount and ways in which the federal government collects revenues. Interior is also currently implementing a number of our recommendations aimed at making improvements within the existing organization of Interior’s functions.

As the Secretary and Congress consider what fundamental changes are needed in how Interior structures its oversight of oil and gas programs, we
believe that our and others’ past work provides a strong rationale for broad reform of the agency’s oil and gas oversight functions—at MMS to be sure, but also across other parts of Interior, including those responsible for oversight of onshore areas. If steps are not taken to ensure effective independent oversight, we are concerned about the agency’s ability to manage the nation’s oil and gas resources, ensure the safe operation of onshore and offshore leases, provide adequate environmental protection, and provide reasonable assurance that the U.S. government is collecting the revenue to which it is entitled. Reorganization and fundamental change can be very difficult for an organization. We believe that regardless of how MMS is ultimately reorganized, Interior’s top leadership must also address the wide range of outstanding recommendations for any reorganization effort to be effective.

Mr. Chairman, this completes my prepared statement. I would be happy to respond to any questions that you or other Members of the Committee may have at this time.

For further information on this statement, please contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov. Contact points for our Congressional Relations and Public Affairs offices may be found on the last page of this statement. Other staff that made key contributions to this testimony include, Ron Belak, Glenn C. Fischer, Jon Ludwigson, Ben Shouse, Kiki Theodoropoulos, and Barbara Timmerman.
## Appendix I: Data on Turnover of Key Department of the Interior Staff

### Table 1: Total Turnover Rates for Bureau of Land Management (BLM) Petroleum Engineers, Fiscal Years 2004–2008

<table>
<thead>
<tr>
<th>Field office</th>
<th>Turnover percentage FY2004-08</th>
<th>Total number of employees in position, FY2004-08</th>
<th>Total number of employees leaving position, FY2004-08</th>
<th>Average number of employees in position, FY2004-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>80</td>
<td>5</td>
<td>4</td>
<td>1 of 3 1 of 2 1 of 2 0 of 2 1 of 2 2</td>
</tr>
<tr>
<td>Carlsbad</td>
<td>75</td>
<td>4</td>
<td>3</td>
<td>1 of 1 0 of 0 1 of 1 0 of 3 1 of 3 2</td>
</tr>
<tr>
<td>Farmington</td>
<td>50</td>
<td>8</td>
<td>4</td>
<td>1 of 6 0 of 6 2 of 6 0 of 5 1 of 5 6</td>
</tr>
<tr>
<td>Glenwood Springs</td>
<td>50</td>
<td>2</td>
<td>1</td>
<td>0 of 0 0 of 0 0 of 1 0 of 1 1 of 1 1</td>
</tr>
<tr>
<td>White River</td>
<td>100</td>
<td>2</td>
<td>2</td>
<td>0 of 1 1 of 1 0 of 1 0 of 1 1 of 1 1</td>
</tr>
<tr>
<td>Pinedale</td>
<td>100</td>
<td>2</td>
<td>2</td>
<td>0 of 1 0 of 1 0 of 1 1 of 2 1 of 1 1</td>
</tr>
<tr>
<td>Roswell</td>
<td>80</td>
<td>5</td>
<td>4</td>
<td>0 of 5 0 of 5 2 of 5 0 of 3 2 of 3 4</td>
</tr>
<tr>
<td>Vernal</td>
<td>33</td>
<td>6</td>
<td>2</td>
<td>0 of 2 2 of 3 0 of 2 0 of 2 0 of 4 3</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Interior data.

Note: We calculated the total turnover rate by (1) counting the number of individual petroleum engineers who separated from BLM, plus those who changed locations, plus those who changed from the petroleum engineer position to another position within that office; (2) dividing that by the number of individual petroleum engineers employed in each BLM office from fiscal years 2004 through 2008. For those individuals who changed jobs or locations, we did not determine whether they changed jobs or locations because of a management decision, as opposed to the employees' own decision.
### Table 2: Total Turnover Rates for BLM Petroleum Engineer Technicians, Fiscal Years 2004–2008

<table>
<thead>
<tr>
<th>Field office</th>
<th>Turnover percentage FY2004-08</th>
<th>Total number of employees in position, FY2004-08</th>
<th>Total employees leaving position, FY2004-08</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average number of employees in position, FY2004-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>30</td>
<td>20</td>
<td>6 1 of 12 0 of 12 2 of 13 2 of 14 1 of 15</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad</td>
<td>47</td>
<td>19</td>
<td>9 1 of 10 1 of 9 4 of 9 1 of 10 2 of 12</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmington</td>
<td>54</td>
<td>37</td>
<td>20 1 of 22 3 of 25 7 of 24 3 of 21 6 of 22</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glenwood Springs</td>
<td>67</td>
<td>3</td>
<td>2 0 of 0 0 of 0 0 of 0 0 of 2 2 of 3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hobbs</td>
<td>22</td>
<td>9</td>
<td>2 2 of 8 0 of 6 0 of 6 0 of 6 0 of 6</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White River</td>
<td>55</td>
<td>11</td>
<td>6 1 of 2 2 of 3 0 of 1 1 of 2 2 of 7</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinedale</td>
<td>83</td>
<td>12</td>
<td>10 1 of 2 1 of 6 2 of 6 3 of 5 3 of 5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roswell</td>
<td>57</td>
<td>7</td>
<td>4 0 of 4 0 of 4 1 of 4 1 of 4 2 of 5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vernal</td>
<td>17</td>
<td>18</td>
<td>3 1 of 13 1 of 14 1 of 13 0 of 15 0 of 15</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: GAO analysis of Interior data.

Note: We calculated the total turnover rate by (1) counting the number of individual petroleum engineer technicians who separated from BLM, plus those who changed locations, plus those who changed from the petroleum engineer technician position to another position within that office; (2) dividing that by the number of individual petroleum engineer technicians employed in each BLM office from fiscal years 2004 through 2008. For those individuals who changed jobs or locations, we did not determine whether they changed jobs or locations because of a management decision, as opposed to the employees’ own decision.
Table 3: Total Turnover Rates for BLM Production Accountability Technicians, Fiscal Years 2004–2008

<table>
<thead>
<tr>
<th>Field office</th>
<th>Turnover percentage FY2004-08</th>
<th>Total number of employees in position, FY2004-08</th>
<th>Total employees leaving position, FY2004-08</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average number of employees in position, FY2004-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>75</td>
<td>8</td>
<td>6</td>
<td>0 of 2</td>
<td>0 of 2</td>
<td>3 of 4</td>
<td>3 of 5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Carlsbad</td>
<td>67</td>
<td>3</td>
<td>2</td>
<td>1 of 1</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>1 of 2</td>
<td>2</td>
</tr>
<tr>
<td>Farmington</td>
<td>63</td>
<td>8</td>
<td>5</td>
<td>0 of 3</td>
<td>1 of 4</td>
<td>0 of 3</td>
<td>2 of 5</td>
<td>2 of 5</td>
<td>4</td>
</tr>
<tr>
<td>Glenwood Springs</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>1</td>
</tr>
<tr>
<td>Hobbs</td>
<td>50</td>
<td>4</td>
<td>2</td>
<td>0 of 1</td>
<td>0 of 2</td>
<td>2 of 4</td>
<td>0 of 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>White River</td>
<td>50</td>
<td>2</td>
<td>1</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>1 of 2</td>
<td>0 of 1</td>
<td>2</td>
</tr>
<tr>
<td>Pinedale</td>
<td>100</td>
<td>3</td>
<td>3</td>
<td>0 of 0</td>
<td>0 of 1</td>
<td>1 of 1</td>
<td>2 of 2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Roswell</td>
<td>100</td>
<td>1</td>
<td>1</td>
<td>1 of 1</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>0 of 0</td>
<td>1</td>
</tr>
<tr>
<td>Vernal</td>
<td>50</td>
<td>2</td>
<td>1</td>
<td>1 of 1</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>0 of 2</td>
<td>0 of 2</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Interior data.

Note: We calculated the total turnover rate by (1) counting the number of individual production accountability technicians who separated from BLM, plus those who changed locations, plus those who changed from the production accountability technicians to another position within that office; (2) dividing that by the number of individual production accountability technicians employed in each BLM office from fiscal years 2004 through 2008. For those individuals who changed jobs or locations, we did not determine whether they changed jobs or locations because of a management decision, as opposed to the employees’ own decision.
Table 4: Total Turnover Rates for Offshore Energy and Minerals Management (OEMM) Petroleum Engineers who Approve Measurement, Fiscal Years 2004–2008

<table>
<thead>
<tr>
<th>Regional office</th>
<th>Turnover percentage FY2004-08</th>
<th>Total number of employees in position, FY2004-08</th>
<th>Total employees leaving position, FY2004-08</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average number of employees in position, FY2004-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gulf of Mexico region</td>
<td>30</td>
<td>10</td>
<td>3</td>
<td>0 of 8</td>
<td>1 of 7</td>
<td>2 of 6</td>
<td>0 of 7</td>
<td>0 of 7</td>
<td>7</td>
</tr>
<tr>
<td>Pacific region</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>0 of 1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Interior data.

Note: We calculated the total turnover rate by (1) counting the number of individual petroleum engineers who separated from OEMM, plus those who changed locations, plus those who changed from the petroleum engineers to another position within that office; (2) dividing that by the number of individual petroleum engineers employed in each OEMM office from fiscal years 2004 through 2008. For those individuals who changed jobs or locations, we did not determine whether they changed jobs or locations because of a management decision, as opposed to the employees’ own decision.

Table 5: Total Turnover Rates for OEMM Inspectors, Fiscal Years 2004–2008

<table>
<thead>
<tr>
<th>District office</th>
<th>Turnover percentage FY2004-08</th>
<th>Total number of employees in position, FY2004-08</th>
<th>Total employees leaving position, FY2004-08</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average number of employees in position, FY2004-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Orleans</td>
<td>42</td>
<td>19</td>
<td>8</td>
<td>1 of 13</td>
<td>0 of 13</td>
<td>2 of 13</td>
<td>3 of 14</td>
<td>2 of 13</td>
<td>13</td>
</tr>
<tr>
<td>Lake Jackson</td>
<td>27</td>
<td>11</td>
<td>3</td>
<td>0 of 9</td>
<td>0 of 11</td>
<td>2 of 11</td>
<td>0 of 9</td>
<td>1 of 9</td>
<td>10</td>
</tr>
<tr>
<td>Lake Charles</td>
<td>41</td>
<td>17</td>
<td>7</td>
<td>2 of 15</td>
<td>0 of 13</td>
<td>0 of 13</td>
<td>1 of 13</td>
<td>4 of 14</td>
<td>14</td>
</tr>
<tr>
<td>California</td>
<td>44</td>
<td>9</td>
<td>4</td>
<td>0 of 7</td>
<td>2 of 9</td>
<td>0 of 7</td>
<td>1 of 7</td>
<td>1 of 6</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Interior data.

Note: We calculated the total turnover rate by (1) counting the number of individual inspectors who separated from OEMM, plus those who changed locations, plus those who changed from the inspectors to another position within that office; (2) dividing that by the number of individual inspectors employed in each OEMM office from fiscal years 2004 through 2008. For those individuals who changed jobs or locations, we did not determine whether they changed jobs or locations because of a management decision, as opposed to the employees’ own decision.
Appendix II: Related Prior GAO Reports

Oil and Gas Management: Key Elements to Consider for Providing Assurance of Effective Independent Oversight, GAO-10-852T, (Washington, D.C.: June 17, 2010).


Oil and Gas Royalties: Royalty Relief Will Cost the Government Billions of Dollars but Uncertainty Over Future Energy Prices and


Royalty Revenues: Total Revenues Have Not Increased at the Same Pace as Rising Oil and Natural Gas Prices due to Decreasing Production Sold, GAO-06-786R, (Washington, D.C.: June 21, 2006).


GAO’s Mission
The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO’s commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony
The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO’s Web site (www.gao.gov). Each weekday afternoon, GAO posts on its Web site newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to www.gao.gov and select “E-mail Updates.”

Order by Phone
The price of each GAO publication reflects GAO’s actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO’s Web site, http://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

To Report Fraud, Waste, and Abuse in Federal Programs
Contact:
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations
Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, DC 20548

Public Affairs
Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548