




# **Management of the Nation's Natural Gas Royalty Revenues**


The Department of the Interior's Response to NY Times

February 2006


# Response to the NY Times

- 
- 
- Natural gas prices reported to MMS are in line with current market prices.
  - Royalty values reported to MMS are different than prices reported to SEC.
  - The decline in natural gas royalty revenues is the result of changes in the domestic natural gas production profile.
  - The Department's regulations are designed to ensure that we collect royalties based on the fair value of the natural gas.
  - The Department has an aggressive and comprehensive compliance and audit program.

# Background

- 
- 
- **Royalty is the landowner's share of the value of the minerals produced and sold from the lease.**
  - **Statutes, regulations, and extensive case law governing mineral royalty management.**
  - **Both onshore and offshore leasing statutes require a royalty rate of at least 12.5% of the value of production. The royalty rate is stated in the lease document. Regulations may reduce that rate in certain limited circumstances.**
  - **Royalties are based on the value at or near the lease.**
  - **Regulations provide the method for valuing production. The value is usually based on the price the lessee receives less prescribed deductions for transportation and processing.**
  - **Lessees must pay royalties monthly, with payment generally due by the end of the month following the production month.**

# Background



---

$$\begin{aligned} \text{Royalty (in \$)} &= (\text{Market Price} - \text{Allowed Deductions}) \\ &\times \text{Volume Sold} \\ &\times \text{Royalty Rate} \end{aligned}$$

Example: (Mcf = 1,000 cubic feet)

Price = \$6.00/Mcf

Transportation = \$0.30/Mcf

Volume Sold = 1000 Mcf

Royalty Rate = 12.5 %


$$\text{Royalty} = (\$6.00/\text{Mcf} - \$0.30/\text{Mcf}) \times 1000 \text{ Mcf} \times .125 = \frac{\$712.50}{4}$$




---

There is No \$700 Million  
Royalty Shortfall

# The New York Times Article

- 
- 
- **The New York Times made a faulty assumption leading to the erroneous conclusion that royalties had been underpaid by \$700 million in FY 2005.**
  - **The Times assumed that reported natural gas royalty revenues shown on the MMS website included only FY 2005 royalties.**
  - **However, each year's data on MMS' website includes prior year adjustments because it represents all revenues reported during the fiscal year and is consistent with royalty disbursements.**
  - **Adjustments are a common accounting practice. By statute and MMS regulations, the oil and gas industry is allowed to make adjustments resulting from some of the following:**
    - **sales contract amendments,**
    - **retroactive adjustments to leases and agreements, and**
    - **MMS-directed adjustments resulting from audits, etc.**

# How the NY Times Calculated \$700 million

- 
- 
- Derived its FY 2005 price from MMS website:  
Value of total gas sold: \$38 billion  
  
Divided by volume of gas sold: 6.7 billion Mcf  
  
Equals Average Value of: \$5.62/Mcf
  - Obtained average of monthly wellhead U.S. natural gas prices from EIA website - \$6.45/Mcf
  - Applied the \$6.45/Mcf to the 6.7 billion Mcf sold to get \$43.2 billion as the value of total gas sold
  - $(\$43.2 \text{ billion} - \$38 \text{ billion}) \times 13.6\% \text{ (royalty rate)} = \$707 \text{ million}$
  - Rounded to \$700 million



# There is No \$700 Million Shortfall

---

## Why is the NY Times Analysis in Error?

- The NY Times compared the value, calculated from the royalty data on the MMS website (\$5.62/Mcf) to the EIA price (\$6.45/Mcf).
- The FY royalty data on the MMS website includes adjustments for prior years when the prices for natural gas were lower. For FY 2005 24% of the sales volume published on the website are prior year adjustments.
- When MMS excludes prior year adjustments, the MMS average value is \$6.59/Mcf.
- The \$6.59/Mcf is the value received for FY 2005 royalty production. The \$6.59/Mcf exceeds the NY Times price.
- **There is no “royalty shortfall”.**





## How MMS Calculated Average FY 2005 Price of \$6.59

---

- NY Times used FY 2005 MMS statistics that included prior year transactions, resulting in an average price of \$5.62/Mcf
- MMS calculated the price based on transactions applicable only to FY 2005
  - Total sales value for FY 2005 months \$38,644 million
  - Divided by sales volumes for FY 2005 months 5,865 million mcf
  - Equals average value for FY 2005 \$6.59/Mcf
- Because prices were lower in prior years, the average value for transactions related only to FY 2005 was higher



---

Royalty Values Reported to MMS  
vs.  
Prices Reported to SEC


# Why are Royalty Values Reported to MMS Different From Prices Reported to SEC?

## Royalty Value (At the Lease)

- Value at the lease where the gas is produced
- Value is net of transportation and processing allowances as provided by law and regulation

## SEC Filings (At Sales Point)

- Composite prices include revenue from Federal, State, and private lands.
- Sales prices include mix of wellhead and market center sales.
- Transportation and processing costs are not deducted from the sales prices reported to SEC.



---

With the Increase in Natural Gas Prices,  
Why Is the Amount of Reported  
Royalties in FY 2005 Not Higher Than in  
FY 2001?



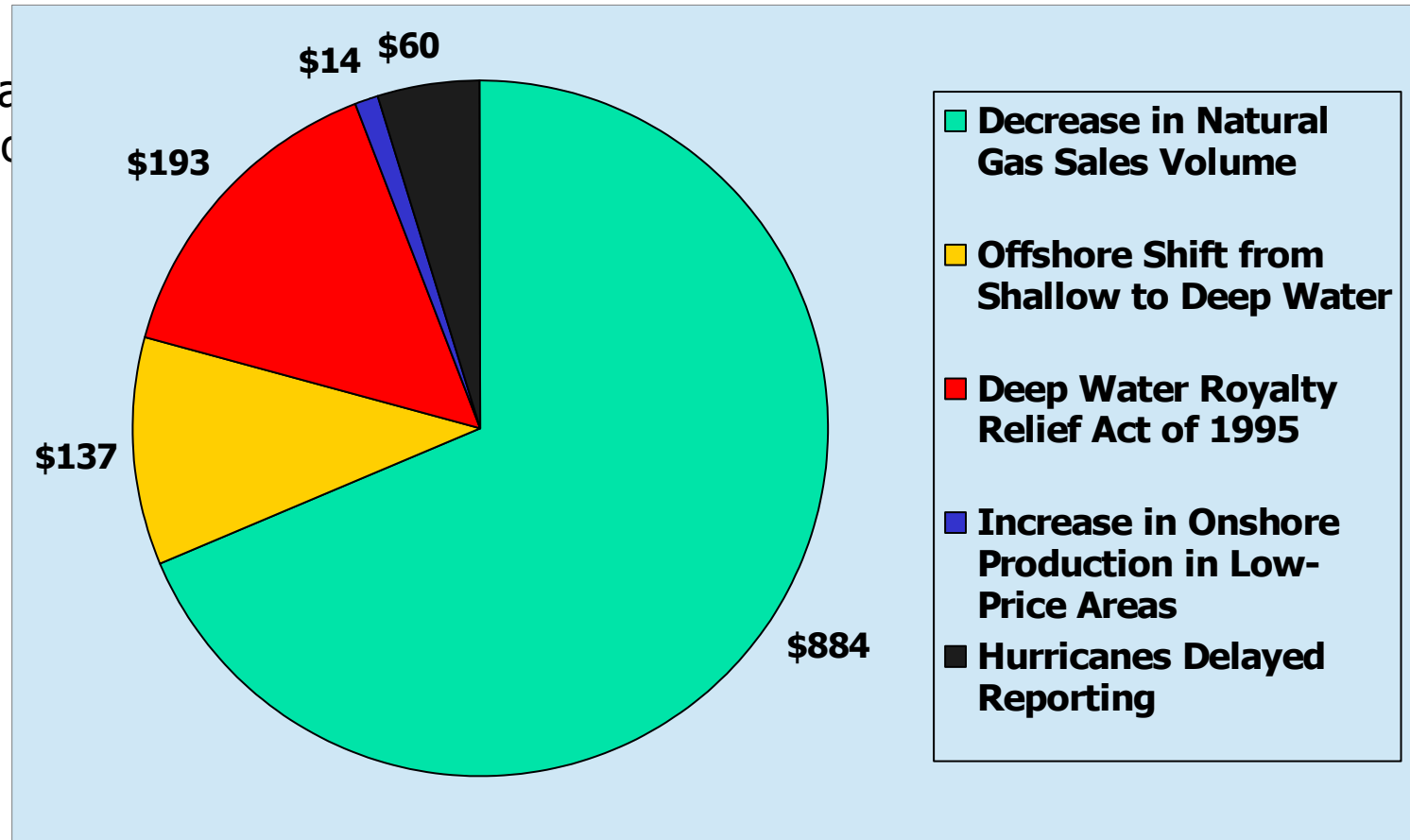
# Why are Reported Natural Gas Royalty Revenues Less in FY 2005 Than in FY 2001?

---

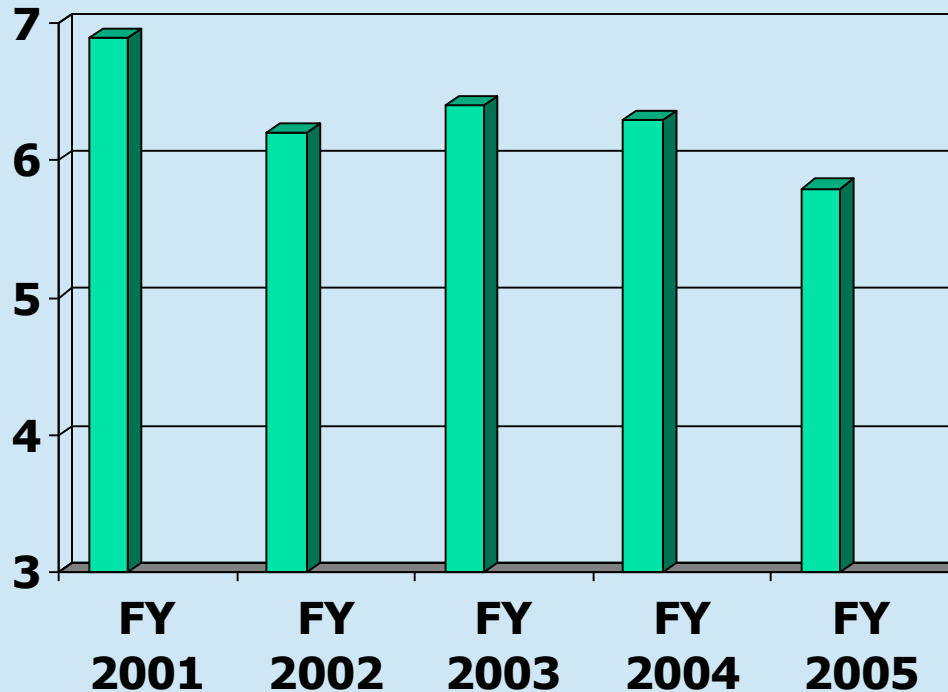
- Overall decrease in natural gas reported sales volume from Federal leases.
- Shift of GOM offshore production from shallow water at 1/6 royalty rate to deep water at a lower royalty rate of 1/8.
- Congressionally mandated offshore royalty relief under the Deep Water Royalty Relief Act of 1995. (P.L. 104-58)
- Onshore natural gas production occurred increasingly in relatively lower price areas.
- Impacts of recent hurricanes on FY 2005 reported revenues, and shut-in natural gas.

# If These Changes Had Not Occurred, Natural Gas Royalty Revenues in FY 2005 Would Have Been \$1.3 Billion More.

Dolla  
millio

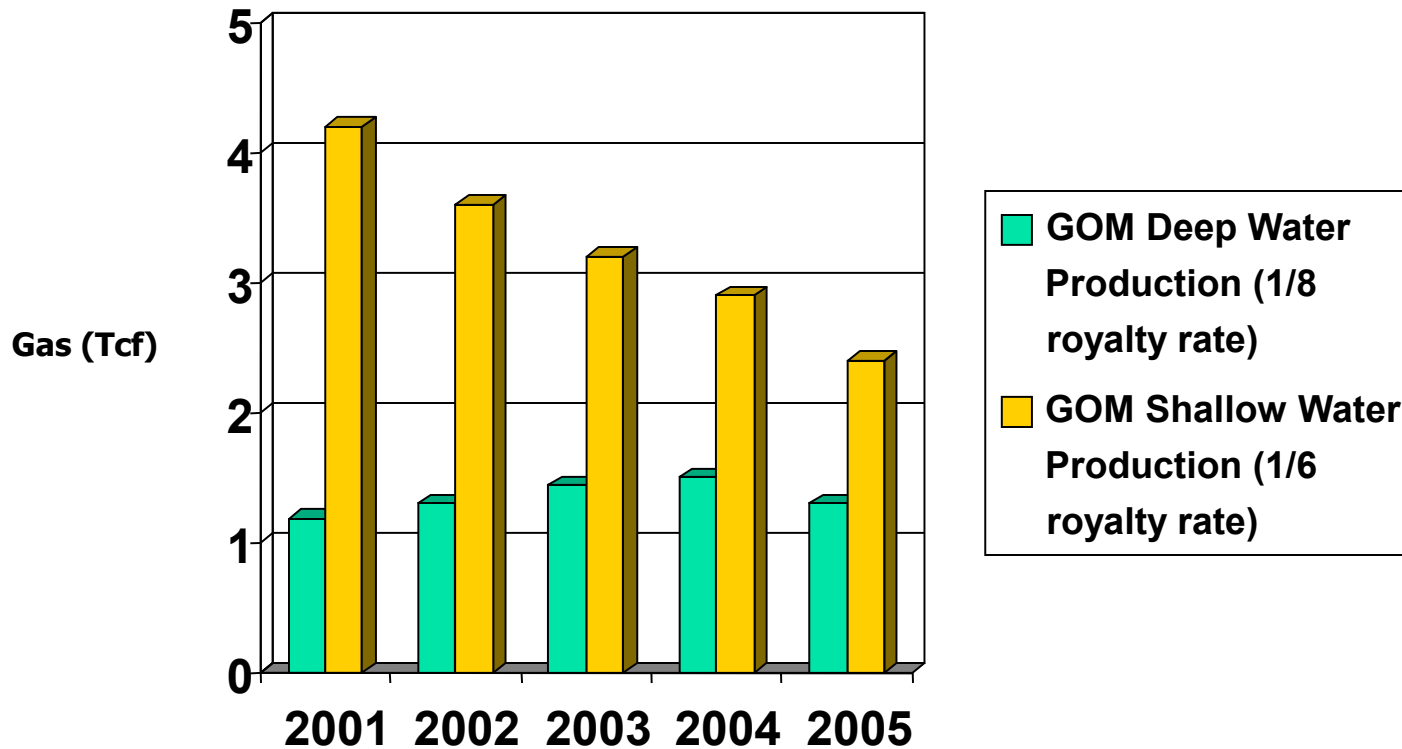


# Decrease in Natural Gas Reported Sales Volumes (Tcf) from Federal Leases



- Decrease from 6.9 Tcf in FY 2001 to 5.9 Tcf in FY 2005 is a decrease of 1 Tcf. Over 340 Bcf of this is gas was shut in during FY 2005 due to Hurricane Ivan and 4 other storms.
- **Applying the \$6.45/Mcf EIA wellhead price results in a \$884 million decrease in gas royalty revenues from FY 2001 to FY 2005.**
- Volumes exclude prior period adjustments.

# Shift of Gulf of Mexico Production From Higher Royalty Rate Leases to Lower Royalty Rate Leases



Data based on Oil and Gas Operations Report (Production)





# Revenue Impact of Shift of GOM OCS Production to Lower Royalty Rate Leases

---

- From FY 2001-2005, GOM offshore natural gas production has shifted from the shallow water to deep water.
- Deep water royalty rates are generally 12 1/2% as opposed to 16 2/3 % for leases in shallow water.
- As a result, the overall average royalty rate for offshore natural gas declined:
  - FY2001 - 15.6%
  - FY2005 - 15.0%
- If FY 2005 royalties had been paid using the FY 2001 royalty rate, revenues would have been \$136 million higher.



# FY 2005 Natural Gas Production Subject To The Deep Water Royalty Relief Act of 1995 (DWRRA)

---

- During FY 2005, companies reported 247 Bcf of non-royalty bearing natural gas produced under the DWRRA.
- About 65% of the reported gas sales volumes are qualified for deep water royalty relief with no price threshold provisions, from GOM leases let in 1998 and 1999, under the DWRRA.
- Royalties are due on the remaining 35%. Several companies do not intend to pay in order to challenge the legality of the price threshold. GOM leases let in 1996, 1997, and 2000, under the DWRRA.
- If there was no royalty free production from DWRRA leases, an additional royalty value of \$193 million would have been reported in 2005.

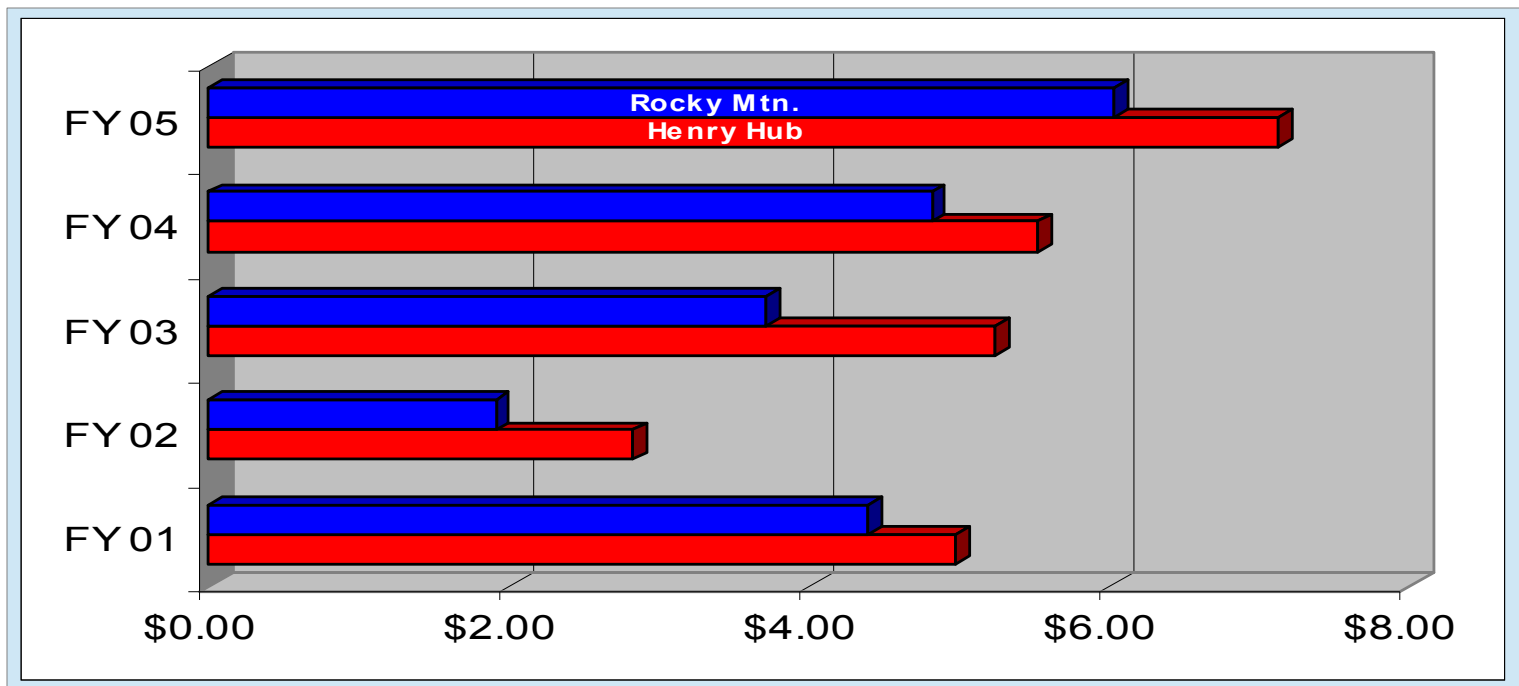
# Onshore Production Occurred Increasingly in Areas with Lower Gas Prices



---

- Some of the decline in offshore production was offset by a 17% increase in onshore gas royalty sales volumes.
- This onshore increase results in less royalties than from an equivalent GOM shallow water offshore sales volume since royalty rates are less ( $1/8$  vs.  $1/6$ ) and prices are lower (Rocky Mountain prices averaged 96 cents less than Gulf of Mexico prices over the FY 2001 – 2005 period).
- The combined effect of these factors results in an estimated \$14.4 million decrease in gas royalties over the period.

# Comparison of Gulf of Mexico (Henry Hub) Gas Prices to Rocky Mountain Prices



Average difference between Henry Hub and Rocky Mtn. Gas Prices from FY01 – FY05 equals \$0.96

# Hurricane Impact on Royalty Reporting

- MMS rule allowed delayed reporting and payment to any company impacted by hurricanes.
- June and July sales reports and payments that were due in FY 2005 were made in FY 2006.

Offshore and Federal Onshore Reported Royalty Delayed Due to 2005 Hurricane Activities				
Sales Month/Year	Commodity	Sales Volume	Sales Value	Reported Royalty Revenue
June-05	Gas	6,895,839	\$46,517,631	\$5,521,747
July-05	Gas	60,862,149	\$428,100,985	\$54,464,654
Total		67,757,988	\$474,618,616	\$59,986,401

Offshore and Federal Onshore Reported Royalty Delayed Due to 2005 Hurricane Activities				
Activities Sales Month/Year	Commodity	Sales Volume	Sales Value	Reported Royalty Revenue
June-05	Oil and Gas		\$99,052,967	\$12,018,837
July-05	Oil and Gas		\$569,513,406	21 \$72,430,183
Total			\$668,566,373	\$84,449,020





---

# Regulatory Reforms To Ensure Collection of Royalties Based on the Fair Value of the Natural Gas

# Regulatory Reforms



---

- **DOI has implemented regulatory reforms clarifying the rules, ensuring receipt fair value and increased royalties.**

- **Federal Oil Regulation**

- **Effective June 2000**

- ✓ Relied on spot market prices
- ✓ Economic analysis estimated an increase of \$67 million in annual royalties

- **Modified August 2004**

- ✓ Changed basis to NYMEX
- ✓ Economic analysis indicated revenue neutral

- **Federal Gas Regulation**

- **Effective June 2005**

- ✓ Changed how transportation deductions were calculated
- ✓ Economic analysis estimated an increase of \$2.3 million in annual royalties



# Regulatory Reforms



---

- Indian Gas Valuation Regulation

- Effective January 2000

- ✓ Added alternative valuation methodology to ensure Indian lessors receive maximum revenues.
    - ✓ Estimates of \$2.4 million annual increase to royalties.



---

# Aggressive and Comprehensive Compliance and Audit Programs



# Compliance and Audit

---

	FY2001	FY2002	FY2003	FY2004	FY2005
<b>Audits Completed</b>	<b>470</b>	<b>311</b>	<b>466</b>	<b>163</b>	<b>632</b>
<i>Note: Audits often span fiscal years. Audits completed in early FY2005 reflect substantial effort to close prior year audits.</i>					
<b>Compliance Funding (\$ Millions)</b>	<b>\$32</b>	<b>\$33</b>	<b>\$33</b>	<b>\$34</b>	<b>\$35</b>
<b>Compliance Staff Onboard</b>	<b>437</b>	<b>420</b>	<b>395</b>	<b>390</b>	<b>369</b>
<b>MMS Auditors Onboard</b>	<b>(163)</b>	<b>(153)</b>	<b>(155)</b>	<b>(150)</b>	<b>(140)</b>
<b>State/Tribal Contract     Auditors</b>	<b>(99)</b>	<b>(98)</b>	<b>(97)</b>	<b>(98)</b>	<b>(96)</b>



---

# Audit Program Accomplishments

- Implemented all OIG recommendations from 2003 report.
- Completed 39 item action plan for improving audit program.
- Received unqualified opinion on 2005 Peer Review.
- In FY 2005 completed compliance work on 71% of mineral revenues received for FY 2002.
- Collected \$3.0 billion in additional royalties since 1982.

# Conclusion



---

- **The \$700 million alleged by the NY Times is based on a faulty assumption.**
- **Natural gas prices reported to MMS are in line with market prices.**
- **The decline in natural gas royalty revenues is the result of changes in the domestic natural gas production profile.**
- **The Department has implemented administrative reforms in recent years aimed at ensuring that we collect the fair value of natural gas royalties.**
- **The Department has an aggressive and comprehensive compliance and audit program.**

**CONTACT INFORMATION:**

Anita Gonzales-Evans, [Anita.Gonzales-Evans@mms.gov](mailto:Anita.Gonzales-Evans@mms.gov)

or

Lyn Herdt, [Lyn.Herd@mmms.gov](mailto:Lyn.Herd@mmms.gov)

Minerals Management Service

Office of Congressional Affairs

(202) 208-3502