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REPORT BY THE COMPTROLLER GENERAL  
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# Comptroller General

OF THE UNITED STATES

## Oil And Gas Royalty Collections-- Longstanding Problems Costing Millions

Since 1959, GAO has been reporting on the need for major improvements in the Geological Survey's oil and gas royalty accounting system. Possibly hundreds of millions of dollars in royalties due from Federal Government and Indian leases are not being collected annually. Although the Geological Survey has readily acknowledged that it is not collecting all royalties due, it has been slow to correct the reported problems.

In an April 1979 report, GAO recommended both short and long range alternatives to the longstanding problems plaguing the system. In this review, GAO determined that the problems not only persist but have become worse. The Geological Survey is now developing an improved royalty accounting system which may be the ultimate solution, but this system will not be fully operational for several years.



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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON D.C. 20548

B-199739

The Honorable Benjamin S. Rosenthal  
Chairman, Subcommittee on Commerce,  
Consumer, and Monetary Affairs  
House Committee on Government Operations

Dear Mr. Chairman:

Your July 9, 1980, letter requested that we follow up on our report titled "Oil and Gas Royalty Collections--Serious Financial Management Problems Need Congressional Attention" (FGMSD-79-24, Apr. 13, 1979). You also asked a series of questions on the financial management of the oil and gas royalty program and the implementation of the Crude Oil Windfall Profit Tax Act of 1980 as it relates to Federal oil.

This report covers our review of the Geological Survey's continued unsuccessful efforts to properly collect oil and gas royalties on Federal and Indian lands and the serious impact of this problem on collection of the windfall profit tax. We testified on these matters before your subcommittee on April 13, 1981.

The Geological Survey is responsible for collecting these royalties and, since April 1980, it also has been responsible for computing and depositing a part of the windfall profit tax levied against oil produced on Federal lands. (Oil production owned or received by the Indians is exempt from the tax.) Royalty collections have increased rapidly in recent years because of substantial increases in oil and gas prices. With oil prices decontrolled on January 28, 1981, this trend can be expected to continue. The Geological Survey has estimated that fiscal 1982 royalty collections will exceed \$6.5 billion, and annual royalties could exceed \$22 billion by fiscal 1990.

Historically, the Geological Survey has not placed a high priority on collecting oil and gas royalties. Because sufficient management attention has not been focused on correcting deficiencies previously reported, financial management problems existing 20 years ago persist today. As a result, the Geological Survey is not collecting all oil and gas royalties; hundreds of millions of dollars owed the Government may be going uncollected each year. Moreover, millions of dollars in royalty income are not collected when due, thus increasing the Government's interest costs. The Geological Survey's ability to accurately assess and collect Federal royalties also affects the collection of the windfall profit tax associated with those royalties, since the tax is derived from royalties collected.

We recognize that the Geological Survey's task is complex and that it must deal with many factors beyond its control, such as the proliferation of lease interests, varying royalty rates, and complex oil and gas valuation factors. However, other contributing factors can be controlled. The total amount of royalties due has increased tremendously in recent years, increasing the importance of collection.

The Geological Survey is seeking to improve its financial management capabilities by developing a new royalty accounting system, but it will be several years before the system is fully implemented. To be successful, the new system must be given a high priority and sustained effort. However, this system will not provide the information needed to determine previously uncollected royalties or the windfall profit tax due on those royalties. A separate effort will be needed to do that.

We are encouraged by the Geological Survey's decision to finally address seriously the royalty accounting problems that have plagued it for over 20 years. Further, we support the Interior Secretary's establishment of the Commission on Fiscal Accountability of the Nation's Energy Resources. The Commission is charged with developing solutions to mineral management problems with focus on oil and gas royalty accounting--an important step toward resolving the royalty accounting problems.

#### ROYALTY ACCOUNTING SYSTEM NEEDS IMPROVEMENT

Since 1959, numerous GAO and Department of the Interior audit reports have pointed out the need for improved management of the Geological Survey's royalty accounting system. In our April 1979 report, we recommended both short and long range alternatives. Our followup work shows that the problems discussed in our 1979 report not only persist, but have become worse.

The Geological Survey still relies almost entirely on production and sales data reported by the oil and gas companies. Little effort is made to verify the accuracy of the data supplied. Production reports are not regularly compared to reported sales; communication between Geological Survey accountants and field inspectors is infrequent; lease inspections are not used to verify production. In short, the oil and gas companies are essentially on an honor system to report accurately and pay fully the royalties when due. To alleviate its reliance upon unverified data, the Geological Survey must now begin to determine what secondary sources of data are available among Government and State agencies.

Compounding this near total reliance on information reported by the oil and gas companies was the breakdown of the automated royalty accounting system. Lease account records continue to be inaccurate and unreliable. They cannot be used to determine if royalties are properly computed and paid. For instance, our

analysis of 275 randomly selected lease accounts disclosed errors totaling over \$1.1 million. These amounts clearly indicate the serious problem the Geological Survey has experienced in maintaining accurate lease account records. We have been reporting on the inaccuracy of lease account records since 1959.

Another longstanding problem centers on the Geological Survey's inability to ensure timely collection of all royalties due. As far back as 1959, we reported that all royalty payments were not received when due. Our current analysis showed that royalties of about \$390 million annually were paid late, costing the Treasury about \$1.6 million in interest.

In our April 1979 report, we called for interest to be charged on late payments. Although agreeing to do so, the Geological Survey has been slow in acting. Interest was not charged on late payments applicable to offshore leases until September 1980; instructions for charging interest on late payments were not provided to field offices handling onshore oil and gas leases until June 1981; and no interest was collected for onshore late royalty payments until July 20, 1981.

In addition to establishing a reliable royalty accounting system, the Geological Survey must increase its auditing and monitoring of lease accounts, which continue to be ineffective in controlling royalty payments. In fiscal 1980, only 5 percent of the lease accounts were audited nationwide even though those audits proved beneficial by leading to additional collections of over \$7.7 million.

The Geological Survey should explore the possibility of sharing its auditing and inspection responsibility and of exchanging information on production and sales with the States. Audits often uncover information that has an effect on other leases, including State and private leases. Information such as this could be shared between Federal and State auditors.

#### GEOLOGICAL SURVEY IS MAKING AN EFFORT TO CORRECT ITS LONGSTANDING PROBLEMS

To its credit, the Geological Survey is attempting to correct its many longstanding financial management problems. It has established royalty management as a separate entity and has reorganized this function--a recognition of the importance of this area. It has hired about 130 additional personnel for royalty management. Most importantly, it is designing and implementing a new royalty accounting system.

As mentioned previously, the system is not yet operational and will not be for several years. The system is to be implemented in three phases: (1) the royalty accounting phase, (2) the production phase, which will permit the matching of production and sales data, and (3) the enhanced management phase, which will

develop quality review and management data. The new system is referred to as a modified Internal Revenue Service (IRS) system because all data submitted will be assumed to be correct subject to extensive computer analysis, screening, and onsite audit. The Geological Survey awarded a contract in September 1981 for the design and implementation of the accounting phase. In addition, the contractor will also be responsible for providing a preliminary design of the production phase. Current estimates are that this first phase will be fully implemented by fiscal 1983 and the second phase by fiscal 1984.

Although we are encouraged by the Geological Survey's ongoing efforts, and many of the longstanding accounting problems have been considered, we are concerned that the agency appears to have not given adequate consideration to

- acquiring data on the number of leases and wells for which it is responsible,
- verifying the royalty computation,
- planning the production phase, and
- developing a comprehensive plan for audits and inspections.

So that its new system does not succumb to the problems encountered by other agencies in designing and implementing new systems, the Geological Survey must give the effort sustained high priority with the long term involvement of top management. An effective accounting and financial reporting system will result only if top management within the Department of Interior and the Geological Survey remain involved. The ongoing impetus to redesign the system must continue.

ROYALTY COLLECTION IS COMPLICATED  
BY WINDFALL PROFIT TAX

The royalty collection task has been complicated by the windfall profit tax. As you know, the Geological Survey initially had limited responsibilities for computing and depositing the windfall profit tax on certain oil royalties from Federal lands--responsibilities it was unable to handle. As discussed in our April 13, 1981, testimony before your subcommittee, the Geological Survey filed blank quarterly returns for the tax in an effort to comply with IRS regulations requiring that a return be filed. At the time, the Geological Survey could not compute the tax owed and therefore could not complete the return. In January 1981, revised IRS regulations gave the Geological Survey the increased responsibility of computing and paying the windfall profit tax on all oil royalties from Federal lands, beginning in April 1981.

Geological Survey has computed and deposited into a suspense account in the Treasury the amount of windfall profit tax it owed

for the 13 months ending March 31, 1981. For the tax due after March 1981, the Geological Survey has been depositing approximately \$65 million a month into the Treasury suspense account. This is to be adjusted to the actual tax liability each calendar quarter with the actual tax due when remitted to IRS. However, as of October 16, 1981, no remittance had been made to IRS because the Geological Survey and IRS could not agree on the means by which payment would be made. The Geological Survey wanted to transfer the funds from the suspense account to IRS, while IRS wanted payment by check. It was recently agreed that payment would be made by check. The Geological Survey was not able to tell us when it would make the first payment to IRS.

In addition, the Geological Survey has not filed a return for the quarter ended June 30, 1981. Although the return is due 60 days after the end of the quarter, the Geological Survey has stated that it needs an additional 60 days to complete the return. The agency is in the process of requesting that IRS grant it a 60-day extension.

Another problem that will remain until the Geological Survey's new royalty accounting system is operational and working properly is the accuracy of the royalty computation itself. Since windfall profit tax calculations are based on royalty payments, they will be understated to the extent that royalties are understated and overstated to the extent royalties are overstated.

#### RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

To ensure that development of the new royalty accounting system is given high priority and sustained effort, we recommend that the Secretary of the Interior closely monitor the work to see that the system is properly planned, designed, developed, and implemented. In this regard immediate attention must be given to determining how the production phase will operate and how it will interface with the accounting phase which is currently being designed. Also, in developing the accounting phase, the Geological Survey must acquire data on the number of leases and wells for which it is responsible, and provide for verification of the royalty computation. The necessary resources must be provided and milestones must be strictly adhered to.

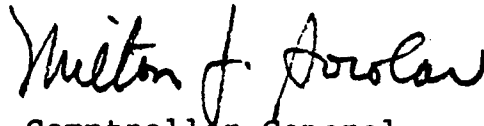
We further recommend that, to gain control over information reported by the oil and gas companies, the Secretary direct the Geological Survey to include in its current redesign effort a comprehensive, systematic plan for monitoring, reconciling, and auditing lease account records; inspecting leases; and verifying production and sales data. The plan should provide for (1) establishment of a detailed audit plan for periodic reviews of lease accounts and oil and gas companies' accounting records, (2) devotion of additional resources to the inspection of leases using field inspectors to help verify data reported, (3) coordination with the States to arrange the sharing of the audit and lease

inspection function, and the exchange of production and sales information, (4) reconciliation of existing lease account records to the extent possible, (5) identification of staff needs and resources for assessing interest on late payments, and (6) faster deposit of royalty payments using electronic funds transfer when possible.

Appendix I includes answers to the questions in your letter and other questions raised during our conversations with your office. Your July 9, 1980, letter is enclosed as appendix II. Appendix III lists GAO and Department of the Interior audit reports concerning the Geological Survey's financial management problems. Appendix IV gives the objectives, scope, and methodology of our review. Appendix V explains the windfall profit tax and how it affects the royalties collected by the Geological Survey. Finally, appendix VI lists the estimated royalties and windfall profit tax collections for fiscal 1980 to 1990.

As requested by your office, we did not obtain official agency comments. Unless you publicly announce its contents earlier, we plan no further distribution of this report until 5 days from the date of this letter. At that time, we will send the report to interested parties and make copies available to others upon request.

Sincerely yours,



Acting Comptroller General  
of the United States

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ANSWERS TO QUESTIONS AND RECOMMENDATIONS ON  
OIL AND GAS ROYALTY COLLECTIONS--LONGSTANDING  
PROBLEMS COSTING MILLIONS

Following are our answers to the questions raised by the Chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations, on the Geological Survey's efforts to correct its financial management problems and ensure that all royalties and related windfall profit taxes are collected.

Question 1: GAO has previously reported that the Geological Survey normally does not verify production or sales data and therefore cannot ensure that all royalties owed the Government have been collected. Is this now being done?

Response:

The Geological Survey continues to rely almost entirely on unverified production and sales data reported by oil and gas companies to compute royalty payments due. Little effort is made to verify the accuracy of the information supplied. Production reports are not regularly compared to reported sales; communication between Geological Survey accountants and field inspectors is infrequent; lease inspections are not used to verify production. In short, the oil and gas companies are essentially on an honor system to accurately report and fully pay royalties when due.

We have previously stressed that by matching production data against sales data, the Geological Survey could identify situations where oil and gas produced were not properly accounted for. Although the agency readily acknowledges its inability to determine the accuracy of the lease accounts if production and sales data are not compared, such comparisons are still not being routinely made. For example, one lease we reviewed, for which the well had been in production only 7 months, indicated the Government was owed \$239,000. However, we found that most of the \$239,000 balance was created by erroneous duplicate reporting of production by the company--an error that could have been detected readily had production and sales data been matched. Since this is normally done only when an account is audited--which is infrequently since only 5 percent of the lease accounts were audited in fiscal 1980--the account could have continued to carry an incorrect balance for some time.

Although the matching of production and sales information is a valuable tool, it has some limitations. Not only is matching sometimes difficult, but in many instances the same company prepares both reports. Therefore, the Geological Survey must have some way to independently verify the data reported. As discussed in our April 1979 report, Geological Survey personnel who periodically inspect well sites can evaluate the reasonableness of the

production data. Also, production reports show the quantity on hand and can be analyzed to detect sudden changes in production quantities. This would reduce the Geological Survey's reliance on the oil and gas companies.

Our April 1979 report recommended that field inspectors assist accountants in verifying sales data by determining the reasonableness of inventory and sales data shown on production reports and pointing out discrepancies. The Geological Survey agreed and in April 1979 issued instructions requiring communication and assistance between field inspectors and accountants when inconsistent or questionable data are reported. However, even though the Geological Survey reported 28,283 field inspections during fiscal 1980, we found no indication that field inspectors and accountants have worked together to verify production. Geological Survey officials confirmed that this is rarely done and told us that accountants continue to accept the company reports as accurate. The following comments were made to us by agency personnel:

- Accountants have not been apprised of the results of field inspections in the past couple of years and it is doubtful that any meaningful communications occur between accountants and engineers.
- Accountants are not routinely made aware of inspection results. One official could not remember when a field inspector had notified an accountant about a discrepancy in reported production.
- Accountants must accept what is reported as valid. The inspectors make no attempt to verify production or sales and little communication occurs between inspectors and accountants.

Questions have also been raised about the quality of the lease inspections. The Geological Survey's field inspecting and monitoring were severely criticized at recent hearings before the Senate Select Committee on Indian Affairs; Senate Committee on Energy and Natural Resources; the Subcommittees on Oversight and Investigations and Mines and Mining, House Committee on Interior and Insular Affairs; and the Commission on Fiscal Accountability of the Nation's Energy Resources. During the hearings it was pointed out that because of the Geological Survey's inadequate lease inspecting and monitoring, thefts and violations on Federal and Indian leases have gone undetected. These violations included

- the use of meters that can be reset,
- improper sealing of oil storage tanks and valves,
- inadequate supervision of the lease operations of oil and gas companies, and
- the lack of schematic drawings of oil and gas lines.

At the time of this review, the Geological Survey had only 47 inspectors to review activities at over 44,000 producing wells. This is not enough inspectors to provide adequate coverage. Violations are apt to occur and go undetected. The Geological Survey should devote additional resources to the inspection effort, especially in light of the serious longstanding problems in this area. It should also ensure that the recommendation in our April 1979 report, calling for field inspectors to assist accountants in verifying sales data, is implemented.

Once the production phase of the new royalty accounting system, now targeted for fiscal 1984, is operational the Geological Survey will be better able to compare production and sales data. In the meantime, if the data are not verified and more frequent and comprehensive inspections are not performed, the present near total reliance on data provided by the oil and gas companies will continue for several more years. Further, even after implementation of the new royalty accounting system, the need will remain for verification of this data from a secondary source.

Question 2: Are oil and gas products being properly valued for royalty purposes?

Response:

The Geological Survey, as we previously stated, relies almost entirely on data reported by the oil and gas companies to compute the amount of royalties due and, therefore, is not certain if the correct value is being placed on oil and gas sold. The agency usually accepts without verification the company's reported selling price as the value of the product. Hence, there is no assurance that oil and gas products are being valued properly for royalty purposes.

The problem of product valuation has been a concern since at least February 1972 when we issued a report to the Congress titled "More Specific Policies and Procedures Needed for Determining Royalties on Oil from Leased Federal Lands" (B-118678). Our report pointed out that the Geological Survey did not have adequate criteria to establish the reasonableness of reported oil and gas values. At that time, Geological Survey officials advised us that the policy for determining the amount of royalties due was to simply accept the values reported by the oil and gas companies. Although Department of Interior regulations set forth various factors to be considered in determining the value of oil and gas products, the Geological Survey did not ensure that these regulations were adhered to by the producing companies. In short, the companies were on an honor system.

As further discussed in our April 1979 report, establishing the value of oil and gas is complex. The value for royalty computation should represent the market value, which may or may not be the same as the selling price. In determining the market value of the oil and gas sold, consideration should be given to

- the various prices charged in a particular area for a certain quality of oil and gas sold,
- the posted prices in the area, and
- the actual price paid.

The Oil and Gas Operating Regulations (30 CFR 221.47) state that under no circumstances should the value used to compute oil and gas royalties be less than the gross proceeds from the sale. If the market price is greater than the selling price reported by the companies, it is the Geological Survey's responsibility to determine whether the selling price is "reasonable." 1/

In our current review, we found that oil and gas values were being verified only when a lease account was audited. Since only 5 percent of the leases were audited in fiscal 1980, this leaves quite a void. When verified, oil prices were to be compared to the prices in bulletins published by the oil companies or, in the case of gas, to contract prices. We found, however, that the Geological Survey did not always have the information it needed to verify prices. For example, when questioned about a pattern of widely fluctuating gas prices involving 18 leases during the period January to May 1980, a Geological Survey official stated that he would have to obtain a copy of the sales contract from the company.

Proper valuations of oil and gas prices have been a continuing problem for the Geological Survey. Its Acting Director, in testimony before your subcommittee, estimated that understated oil and gas values cause a loss of about 2 percent in royalty collections each year. This is significant since it means over \$54 million may have been lost in fiscal 1980 alone. The Geological Survey needs to assure itself that the values used to compute oil and gas royalties are accurate. However, until the agency can escape its current heavy reliance on oil and gas company data, it cannot ensure proper valuation of royalties.

Geological Survey officials have stated that the new royalty accounting system will provide a means of product valuation. It will be several years, however, before this system will exist. In the meantime, the Geological Survey will have to rely principally on increased lease audits and manual verification of computations to ensure that all royalties due are collected.

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1/In the absence of a good reason to the contrary, value is defined in the Oil and Gas Regulations as "reasonable" if it is the highest price paid or offered in fair and open market for the major portion of like quality products produced or sold.

Question 3: GAO has previously reported that the Geological Survey's lease account records contained numerous errors and data omissions and did not accurately reflect the amount of oil and gas royalties owed and collected. Has this problem been corrected?

Response:

The Geological Survey's lease account records are still inaccurate and unreliable--a problem we have been reporting on since 1959. The accounts contain numerous errors and data omissions and cannot be relied on to effectively manage royalty collections. As a result, the Geological Survey and the oil and gas industry cannot use these records to determine if royalties were properly computed and paid.

The Geological Survey maintains account records for oil and gas leases on Federal and Indian lands. Royalties earned and payments made are recorded in the accounts which are maintained by the Geological Survey's automated accounting system using data reported by the oil and gas companies. If the recorded amounts due and the royalties paid do not agree, the account will show a balance. Normally, account balances exist because the companies

- incorrectly compute the amount of royalties owed or paid,
- make an error in reports submitted and used to compute royalties owed or in paying royalties due,
- fail to pay royalties owed, or
- fail to report the data used to compute and record royalties owed or paid.

However, the agency also creates erroneous account balances by recording charges or payments in the wrong account or by making other clerical errors.

Our April 1979 report showed that as of July 1978, the lease account records contained numerous errors and data omissions and could not be relied on to determine the accuracy of royalty collections. On the basis of our recent followup work, we concluded that as of May 1981, the lease account records still are inaccurate.

As discussed in our April 1979 report, the Geological Survey maintained 22,735 lease accounts as of July 30, 1978. Only 6,569 of these did not have a balance. Of the accounts with a balance, 9,497 indicated that the amount paid was greater than the royalties due the Government. Although this condition can result from overpayments by the oil and gas companies, the more frequent reason was that royalties due the Government were understated when company reports were not received, and the charges were not properly entered in the accounts. The balance of these 9,497 accounts amounted

to \$49.8 million. The remaining 6,669 accounts indicated that royalties of \$38.8 million were due because the amounts collected were less than the amounts computed as due.

To determine the accuracy of these accounts, we reviewed 714 randomly selected lease accounts for June, July, and August 1977. We noted the following deficiencies which contributed to the inaccuracy of these basic accounting records.

- In 137 cases, royalty payments totaling \$258,000 were recorded in the accounts without corresponding amounts being recorded as due.
- In 245 cases, royalties totaling \$471,000 were recorded as due without corresponding royalty payments being recorded.
- In 469 cases, the royalties due did not equal the royalties paid. Royalties paid exceeded the amounts recorded as due by \$122,000.

Our current review showed lease accounts are still inaccurate. As of May 1981, 20,356 or 73 percent of the Geological Survey's 27,909 lease accounts had a balance. Of these, 9,320 accounts indicated that the agency had been underpaid by \$173 million; the remaining 11,036 accounts indicated, usually erroneously, that the agency had been overpaid by \$187 million.

Our followup analysis of 275 of the 714 lease accounts we had previously analyzed, for the 3 months ending June 30, 1980, showed that:

- In 115 cases, royalty payments totaling \$725,336 were recorded in the accounts without corresponding amounts being recorded as due.
- In 97 cases, royalties totaling \$276,569 were recorded as due without corresponding royalty payments being recorded.
- In 174 cases, the royalties recorded as due exceeded the royalties recorded as paid by \$119,226.

These amounts do not necessarily represent underpayments or overpayments, but they clearly indicate the serious problem the Geological Survey has experienced in trying to maintain accurate lease account records. Because of incomplete and inaccurate data in these accounts, they cannot be used effectively to manage royalty collections.

In our April 1981 testimony before your subcommittee, we called on the Geological Survey to develop a plan for reconciling these accounts and for identifying and collecting previously uncollected royalties.



In June 1981, the Geological Survey announced plans to audit accounting records of 20 to 25 oil and gas companies that operate on Federal and Indian lands to determine the amount of underpayments and overpayments that may have occurred. These companies pay over 80 percent of the royalties collected and make up 50 percent of the Geological Survey's lease accounts. The audits will cover transactions for the past 6 years. They are expected to take 3 to 4 years and cost approximately \$12 million. The Department of the Interior is now awarding contracts for the first two audits. The results of this work will be used as a basis for determining whether the remaining 20 or so companies are to be audited.

Because of the planned auditing project, the Geological Survey has no plans for reconciling its existing lease account records. We support the plan to audit the oil and gas companies, but feel that more is needed. The agency should also develop a plan to reconcile its lease account records to the extent possible; thereby ensuring proper accountability for hundreds of millions of dollars of royalties.

Question 4: GAO previously reported that the Geological Survey was not collecting all royalties when due and late payments were causing the Treasury to incur additional interest costs. Have these conditions continued to exist?

Response:

Late royalty payments have continued to cost the Treasury potentially millions of dollars in additional interest costs annually. Our analysis of selected lease accounts for the 3 months ending June 30, 1980, disclosed that late payments totaled \$98 million for that quarter alone. Had these delinquent payors been assessed interest charges equal to the cost of Federal borrowing, they would have owed an additional \$400,000 for the period. Computed for the full year, \$390 million in royalty payments may have been paid late, costing the Treasury as much as \$1.6 million in additional interest.

Late payments are not a new problem. As far back as 1959 we reported that all royalty payments were not received when due. For instance, our April 1979 report disclosed that in 1977 the Geological Survey did not collect about \$359 million in oil and gas royalties when due, costing the Government about \$360,000 in interest. We found payments were not received within the time specified in the leases because the agency did not

--adequately enforce provisions concerning the timely payment of royalties, and

--impose appropriate administrative fees or interest charges on those making late payments.

As discussed above, our current review has shown that late royalty payments continue to be a problem. Our analysis of 275 randomly selected lease accounts, drawn from the 714 lease accounts examined and reported on in our April 1979 report, showed that late royalty payments for oil and gas sales could have been over \$390 million in 1980, costing the Government as much as \$1.6 million in interest. Appendix IV details our methodology and sampling plan.

Our current projection for late payments and interest costs is based on the number of leases that existed during our 1979 review--22,735 lease accounts as of July 31, 1978. The number of leases has since grown to 27,909--an increase of almost 23 percent. Hence, it is reasonable to assume that the dollar amounts of late payments and additional interest costs are even greater than projected.

In our April 1979 report, we called for interest to be charged on late payments to encourage prompt reporting and paying. Department of the Interior internal auditors made the same recommendation in 1975. Since the amount of late payments is increasing, it has become more important to charge interest. Although agreeing to do so, the Geological Survey has been slow in acting. Interest was not charged on late payments applicable to offshore leases until September 1980. From then until February 27, 1981, interest assessed on these leases amounted to \$55,910, of which \$20,438 had been paid. The agency did not provide instructions to its field offices for charging interest on late payments for onshore oil and gas leases until June 1981, and no interest was collected for onshore late royalty payments until July 20, 1981.

Although the Geological Survey has taken the first step by issuing procedures for charging interest on late payments, it must still implement the procedures. Interest should be assessed at the quarterly rate required by the Treasury for delinquent debts. Such assessment could essentially be done automatically--a computer could identify late payments and compute interest charges. However, the present automated system does not have this capability. Until an adequate automated system is developed with this capability, the Geological Survey will have to provide additional staff to manually do the job. For example, officials at the Geological Survey office in Roswell, New Mexico, which processed over 34,000 payments amounting to \$19.4 million during November 1980, estimated that six additional employees would be needed to ensure that interest was charged on late payments. Unless the necessary staffing and other resources are quickly identified by the Geological Survey, we doubt that interest can be effectively charged in the near future.

Question 5: GAO previously reported that the Geological Survey was not devoting sufficient resources to auditing lease account records. What has been done to correct this problem?

Response:

The Geological Survey has done very little to correct this problem. Its auditing of lease accounts continues to be inadequate to effectively control royalty payments. As we have reported, without sufficient lease account audits the Geological Survey must rely upon unverified data reported by the oil and gas companies to compute and collect royalties due. Inadequate staffing and special projects have prevented establishment of an effective auditing program. Other initiatives to improve lease account accuracy, such as monitoring newly established accounts and reviewing accounts for obvious errors, were abandoned for similar reasons. Without a viable auditing program, the agency's longstanding financial management problems will continue.

In our 1959 report, we stressed the importance of having an auditing program to identify and resolve deficiencies in the accounting for royalties. We reiterated the importance of auditing in our 1979 report. In 1975 the Department of the Interior internal audit staff also recommended increased emphasis on the auditing of lease account records.

The Geological Survey recognized the importance of comprehensive audits by establishing that an account is to be audited at intervals ranging from once a year to once every 6 years, depending upon the amount of annual royalties paid. Such audits are to represent systematic and thorough investigations and appraisals of such things as reported production and sales, reported values of oil and gas royalties and rentals paid, and compliance with the lease terms and with oil and gas operating regulations. Lease accounts are to be reconciled to identify misapplied or missing charges, underpayments, and overpayments that appear or should appear in the account.

Although it established audit criteria, the agency has not followed through and the situation today is essentially as it was in 1979. In fiscal 1980, only 5 percent of the lease accounts were audited nationwide, although the audits proved beneficial by leading to additional collections of over \$7.7 million. Geological Survey officials have acknowledged that audit efforts continue to be inadequate and that they have not been able to audit enough accounts to achieve effective control over them. For instance, the Casper and Albuquerque offices, which are responsible for over 18,000 lease accounts, completed only 92 audits during 1979 and 1980. This means that for those two years, only 1/2 of 1 percent of the total accounts for which these offices are responsible were audited. At this rate, the 18,000 lease accounts will never be completely audited. Even at the fiscal 1980 nationwide rate of 5 percent, it would take 20 years to audit the 18,000 lease accounts in the two offices.

At the time of our 1979 report, the Geological Survey estimated that it would reconcile all lease accounts by 1981.

However, our present work has shown that this task has scarcely been started.

Overall efforts by the agency to improve monitoring and auditing of accounts have not been successful. Audit coverage is not sufficient in terms of numbers of accounts audited, nor does it provide assurance that accounts most needing audit will be included.

According to Geological Survey officials, the audit and reconciliation requests received from Indian tribes, Federal agencies, companies, and individual lease operators occupy much of the available audit resources. It is difficult for the already burdened audit staff to perform audits of accounts other than those selected on a planned or systematic basis. For example:

--In the Albuquerque office, half the audit staff was working exclusively on royalty-in-kind contracts and on Indian accounts. For one 3-month period, the entire audit staff worked exclusively on Indian accounts because of lawsuits affecting these accounts. We were told that although Indian leases represent 11 percent of the lease accounts, they required 33 percent of the audit resources.

--In the Metairie office, officials stated that an increasing amount of auditing time--presently about 60 percent--is being applied to processing offshore refund requests. These requests, which result when lessees claim to have made an overpayment, require congressional approval. In fiscal 1980, 43 such refund requests were received. In the first 5 months of fiscal 1981, 56 requests have already been received.

Other initiatives, such as monitoring newly established accounts and reviewing accounts for obvious errors, also have not been pursued. As we have repeatedly pointed out, lease account problems can be eliminated or reduced if problems are discovered and resolved early in the life of a new account. The Albuquerque office assigned auditors to monitor newly established accounts but abandoned this effort because of higher priority work. The newly established accounts we reviewed as part of our current work exhibited the same deficiencies as the older accounts. Our analysis of 20 lease accounts, established since July 1979 and with a combined balance of over \$250,000, showed that

--payments were not collected when due,

--sales and production reports were filed late, and

--differences existed between amount of royalty paid and amount due.

These problems could have been eliminated had the accounts been monitored.

As discussed on page 7, the Geological Survey plans to audit the accounting records of 20 to 25 oil and gas companies to determine the amount of underpayments and overpayments that have occurred. We support this effort, but believe more is needed. The agency must also develop a plan to reconcile its lease account records to the extent possible.

The Geological Survey also needs to (1) develop a systematic approach to auditing and monitoring lease account activities and (2) identify the additional resources needed to establish and maintain a continuing auditing program. Milestones for completion of the task are needed.

Geological Survey officials stated that to carry out its plans the agency is hiring 130 auditors, accounting technicians, and clerical personnel. According to agency officials, the auditors will be used initially to explain the new royalty accounting system to oil and gas companies. It is not certain that this increase in staff will be sufficient to audit the 27,000 lease accounts for which the agency is responsible. To accomplish as much as possible toward this goal, the auditors must adhere to an established program and should not be routinely used for other work.

Question 6: In your earlier report greater use of computer edit controls was recommended to prevent errors in accounts and to identify problems requiring immediate action. Has this been done?

Response:

Computers that are given adequate and accurate information and are programmed fully can perform a vital function in helping ensure the correctness of information entered in an accounting system. Computer edits can be developed that prevent the system from accepting invalid information.

The Geological Survey's lease accounts contain many errors that could be eliminated, reduced, or identified through the use of computer edits and other computer techniques. The current royalty accounting system, however, still lacks these capabilities.

We noted that the existing royalty accounting system cannot:

--Identify those instances where companies have not included reports for all their leases.

--Provide lists of leases for which royalty payments and charges were not made (indicating that someone did not report), or for which charges and payments did not agree. Such listings would enable the Geological Survey to effectively follow up on nonpayments, late payments, lack of reporting, and erroneous reporting.

--Match the names of those making payments with those who should be paying and reporting on leases. This would help prevent payments from being posted to inappropriate lease accounts.

Many of the problems we identified in reviewing lease accounts could have been pinpointed through computer edits. Geological Survey officials agreed that computer edits of the type mentioned above would assist them in establishing and collecting royalties and said they plan to incorporate needed edits in the new royalty accounting system being developed.

Question 7: Outline briefly the role and responsibility of the Geological Survey and the Treasury Department for ensuring accurate and timely deposit of receipts relative to oil and gas production where the Federal Government has an interest. Identify any failings or shortcomings in this process.

Response:

Oil and gas royalty revenues in general appear to be deposited on time and in accordance with Department of the Treasury requirements. Nevertheless, the Geological Survey could further improve its cash management practices by using electronic funds transfer. This would increase the timeliness of deposits and could reduce the Treasury's borrowing cost.

The Treasury requires agencies to promptly deposit receipts to the general account of the Treasury. Funds are to be deposited no later than the morning of the business day following receipt, but may be held until \$1,000 is accumulated and then deposited.

The Geological Survey is solely responsible for ensuring that all royalty revenues are deposited accurately and on time and that allocation of these revenues is properly reported to the Treasury. It is the Treasury's responsibility to record the deposits in appropriate Treasury accounts; it acts as a bookkeeper in that it records deposits to and disbursements from the various Treasury accounts according to information submitted by the Geological Survey.

We observed the cash management practices at the Geological Survey's Roswell office for the week ended January 30, 1981. This office is responsible for collecting and depositing approximately one-third of all royalties received from onshore leases. We found that deposits are sent by certified mail each day to a Federal Reserve Bank and are normally received the following day, thereby meeting Treasury requirements.

Also, we reviewed the cash receipts and deposits for the 15 months ending March 1981 at the Geological Survey's Metairie office, which is responsible for collecting and depositing the majority of royalties from offshore leases. We found that Treasury

requirements were met with deposits being hand-carried to the Federal Reserve Bank on the day received. In discussions with Geological Survey officials, we were told that Metairie is the exception. All other field offices use Roswell's method of mailing daily royalty deposits directly to the Federal Reserve Bank. A 1-day difference in depositing amounts of the magnitude collected by the Geological Survey could conceivably cost the Government over \$2 million annually in additional interest costs, assuming a 12-percent interest rate and the \$6.5 billion of royalties projected for fiscal 1982.

The Geological Survey addressed this issue in the new royalty accounting system design and proposes to deposit the royalty collections into the Federal Reserve Bank the same day as received. All royalty payments will be mailed to the Lakewood, Colorado, office which will prepare and hand-carry the deposit slips directly to the Federal Reserve Bank in Denver. Although this will allow the funds to be deposited into the Treasury more quickly, the Treasury will still have to wait an average of 1 to 2 days for the royalty checks to clear before it has use of the funds. This waiting period could be eliminated through the use of electronic funds transfer procedures.

Under these procedures, oil and gas companies would wire their royalty payments directly to the Federal Reserve Bank, thereby eliminating the check clearing process and giving the Treasury immediate use of the funds. Electronic funds transfer allows instant transfer of funds from virtually any bank in the country to the Treasury. This helps ensure that payments arrive on the due dates so that investments can be made quickly and interest is maximized. The procedure entails obtaining a bank account number for the receipt of the funds and electronically transferring funds to that account on a specified due date. This is done at no additional cost to the Government.

The use of electronic funds transfer could result in significant interest savings to the Government. For example, if the fiscal 1982 estimated royalty collection of over \$6.5 billion were made through electronic funds transfer, as opposed to hand-carried daily deposits, the Government could possibly save an additional \$2 million to \$4 million assuming a 12-percent interest rate. We believe the Geological Survey should investigate with the Treasury the use of electronic funds transfer to deposit royalty collections, especially for the 20 to 25 largest producers of oil and gas on Federal and Indian lands, which pay over 80 percent of the royalties.

Another problem affecting the timely deposit of royalties is the returning of royalty checks. Geological Survey officials stated that from time to time the agency receives checks for which it is unable to identify the lease involved, and consequently sometimes returns the checks to the payer. Officials did not know the

magnitude of the problem but stated that action had been taken to ensure that such checks are deposited to the Government's account and the payer then queried regarding the payment.

Question 8: Can the lease royalty rates be changed? If not, what legal action is necessary?

Response:

There are two types of leases: noncompetitive and competitive. All offshore leases are competitive while onshore leases are awarded both competitively and noncompetitively. The royalty rate for noncompetitive leases--presently at 12-1/2 percent--is fixed by statute and would require legislative action for any change. A noncompetitive lease is issued when the land contains no known resource of oil and gas. It is issued through lottery or, if the land has not been leased in the past, in response to an application filed by the party wishing to lease the land.

The royalty rate for competitive leases, on the other hand, is set by statute at not less than 12-1/2 percent and is increased through administrative action. Such a change, however, would not affect the royalty rates of any existing leases, since leases are legally binding upon both parties and mutual consent is necessary to change the rate. A competitive lease is issued when the land is in a known geological structure of a producing oil and gas field. The Geological Survey estimates the lease value and the Bureau of Land Management awards it to the highest bidder, provided the highest bidder is in concert with Geological Survey's estimate of the lease value.

Question 9: Does the Geological Survey identify the various types and quantities of oil produced on Government lands and leases--upper tier, lower tier, tertiary, etc.? Is it capable of doing so to ensure correct royalty and windfall profit tax receipts?

Response:

The Geological Survey requires the lessee to provide information showing

- how much oil was produced,
- what lease or well produced it,
- the quality of the oil produced, and
- the sales price.

As discussed in question 1, however, the Geological Survey relies almost entirely on unverified production and sales data reported by the oil companies. Reported production along with the sales



prices is generally accepted as correct and is verified only when a lease is audited, which, as we discussed previously, is seldom done.

Before the enactment of the Crude Oil Windfall Profit Tax Act of 1980, the Geological Survey did not identify the tier from which the oil was produced. The tier category depends upon the date the well began producing the oil and the amount of oil it is producing. These data are now provided to the Geological Survey by the oil companies for computing the windfall profit tax. The sales price gives an indication of the quality. Generally, the higher the price, the better the quality of oil.

Even though the Geological Survey has information available related to quantity, tier, type, and sales price the information is not verified; whatever is reported is accepted as correct. Unless the Geological Survey increases its lease inspections and audits it will not be in a position to verify this information and its reliance upon the oil companies will continue.

Question 10: Does the Geological Survey have the authority to require maximum efficient production from Federal oil and gas leases in order to maximize royalty collections?

Response:

The Geological Survey does not have the authority to unilaterally require maximum efficient production from oil and gas leases in order to maximize royalty collections. The determination of the maximum rate of production for a lease is based on several factors such as energy conservation, efficient utilization of public and private resources, and the royalty rate. The responsibility for establishing production rates is shared by the Departments of Energy and the Interior. In giving the Department of Energy the leadership role in making national energy policy, the Energy Organization Act of 1977 and the Outer Continental Shelf Lands Act Amendments of 1978 state that the Department has the authority to set production rates for Federal leases. That act transferred the Department of the Interior's functions regarding the setting of production rates on individual leases to the Department of Energy. Interior has retained statutory authority for enforcing all leasing regulations, including those relating to production rates. Hence, various provisions in the Oil and Gas Operating Regulations and the existing lease forms contain language to the effect that the rate of production is subject to control by Interior.

We therefore believe that the Congress intended the Departments to share the responsibility for establishing the rates of production for Federal leases, and neither Department has the authority to act alone in this respect. We have previously addressed the coordination efforts between the Departments of Energy

and the Interior in leasing Federal energy resources ("Federal Leasing Policy--Is the Split Responsibility Working?" EMD-79-60, June 4, 1979).

Question 11: In light of the Geological Survey's past financial management problems, can it accurately collect and deposit the windfall profit tax?

Response:

Because of the Geological Survey's inability to accurately collect royalties due the Government, there is no assurance that windfall profit tax collections are accurate. Since the windfall profit tax on Federal land is based on the royalty collection system, deficiencies in collecting royalties will be carried over to the windfall profit tax collections. If the royalties are paid late, the tax will be late. If royalties are not reported, the windfall profit tax will not be collected. If the royalty computation is inaccurate, the tax will be inaccurate.

Temporary IRS regulations, issued on April 4, 1980, charged the Geological Survey with responsibility for computing and depositing the windfall profit tax applicable to royalty-in-kind oil revenues. Revenues are classified as royalty-in-kind when, instead of collecting monetary royalties directly from a lease interest, the Government takes a portion of the oil produced by the lessee and sells it to small refineries for processing.

To illustrate, assume 10,000 barrels of oil are produced on a Federal lease having a royalty rate of 12-1/2 percent. If this oil is sold for \$400,000, the lessee owes the Government \$50,000 in royalties. The Geological Survey can require that the royalty be paid in money or it can take a percentage of the oil as its royalty payment. In the above example, if money payment is chosen, a check for \$50,000, less the windfall profit tax, is remitted by the oil company. If payment in oil is chosen, the Geological Survey receives 1,250 barrels of oil (12-1/2 percent of 10,000 barrels). After selling the oil to a refinery, the Geological Survey withholds and deposits the appropriate windfall profit tax. Appendix V provides a more detailed explanation of the windfall profit tax as it applies to Federal oil royalties.

Although this is the procedure intended by the tax regulation, it has not always been followed. The Geological Survey had sometimes requested purchasers to withhold and deposit the tax. Because some purchasers withheld the tax and others did not, the Geological Survey could not be sure how much windfall profit tax it was responsible for withholding or how much had been paid on its behalf.

Matters were further complicated because some oil companies were lax in supplying the Geological Survey with the information it needs. Certain data must be furnished by the oil companies, such as oil tier category and base price information, in order for

the Geological Survey to compute the windfall profit tax. Before implementation of the windfall profit tax, the oil companies were not required to submit this information to the Geological Survey. Since institution of the tax, however, oil companies not only must report additional information to the Geological Survey, but in some instances must calculate the tax and determine if they are required to withhold it from royalty payments.

Consequently, the Geological Survey did not know how much tax was due from the Federal royalties. It estimated the windfall profit tax applicable to Federal royalties for the 7 months ending September 30, 1980, to be \$221 million, but had little support for this figure. As discussed in our April 13, 1981, testimony before your subcommittee, the Geological Survey filed blank quarterly tax returns in an effort to comply with IRS regulations requiring a tax return for the windfall profit tax applicable to royalty-in-kind oil revenue. Since it could not compute the tax owed, it could not complete the return.

In January 1981, revised IRS regulations made the Geological Survey responsible for computing and paying the windfall profit tax applicable to all oil royalties paid the Federal Government beginning in April 1981. Despite its previous problems in computing the tax on royalty-in-kind oil revenue, the Geological Survey asked for the additional responsibility of collecting the tax on all Federal royalties. It issued instructions to its field offices on May 15, 1981, for withholding the tax and is optimistic about its ability to compute and deposit the tax. Amounts withheld will be deposited into a Treasury suspense account and the total will be adjusted to the actual tax liability each calendar quarter. The appropriate tax will then be remitted to the Treasury.

The Geological Survey has computed and deposited into the Treasury suspense account the amount of windfall profit tax it owed for the 13 months ending March 31, 1981. For the tax due after March 1981, the Geological Survey has been depositing approximately \$65 million a month into the Treasury suspense account. This is to be adjusted to the actual tax liability each calendar quarter with the actual tax due then remitted to IRS. However, as of October 16, 1981, no remittance had been made to IRS because the Geological Survey and IRS could not agree on the means by which payment would be made. The Geological Survey wanted to transfer the funds from the suspense account to IRS, while IRS wanted payment by check. It was recently agreed that payment would be made by check. The Geological Survey was not able to tell us when it would make the first payment to IRS.

In addition, the Geological Survey has not filed a return for the quarter ended June 30, 1981. Although the return is due 60 days after the end of the quarter, the Geological Survey has stated that it needs an additional 60 days to complete the return. The agency is in the process of requesting that IRS grant it a 60-day extension.

Although there appears to be improvement in the Geological Survey's handling of the windfall profit tax, another problem will remain until the Geological Survey's new royalty accounting system is operational and working properly: accurate computation of the royalty itself. Since windfall profit tax calculations are based on royalty payments, they will be understated to the extent that royalties are understated and overstated to the extent royalties are overstated.

Question 12: In response to your April 1979 report, the Geological Survey is designing a new royalty accounting system. Will this new system correct the Geological Survey's longstanding financial problems?

Response:

The Geological Survey, recognizing that its existing accounting system is inadequate, formed a task force to determine the deficiencies in the system and recommend a course of action for correcting the problems. The task force recommended that a new royalty accounting system be designed and implemented. The new system will not be operational for several years.

The Geological Survey completed a feasibility study and cost-benefit analysis for a new system in March 1981. The system is to be implemented in three phases: (1) the royalty accounting phase, (2) the production phase, which will permit the matching of production and sales data, and (3) the enhanced management phase, which will center on developing quality review and management data.

The Geological Survey refers to the new royalty accounting system as a modified Internal Revenue Service system, because all data submitted will be assumed to be correct subject to extensive computer analysis, screening, and audit. Current estimates are that the first phase will be fully implemented by fiscal 1983 and the second phase by fiscal 1984.

American Management Systems, Inc. was awarded a contract on September 17, 1981, for \$4.3 million for the design and implementation of the accounting phase. In addition, the contractor will be responsible for preparing a preliminary design of the production phase. A detailed system design of the production phase is an option of the contract requiring further negotiation between the Geological Survey and the contractor.

As we testified on October 6, 1981, before the Subcommittees on Oversight and Investigations and Mines and Mining, House Committee on Interior and Insular Affairs, it appears that many of the longstanding accounting problems have been considered in the preliminary design of the accounting phase. However, since the contract for the design and implementation of the accounting phase has been awarded only recently, it is too early to tell whether the effort will be successful.

Although we are encouraged by the Geological Survey's ongoing efforts, we testified about our concern that the agency appears to have not given adequate consideration to

- acquiring data on the number of leases and wells for which it is responsible,
- verifying the royalty computation,
- planning the production phase, and
- developing a comprehensive plan for audits and inspections.

Before the Geological Survey can effectively control and monitor royalty collections, its system must have accurate, reliable, and timely information on the number of leases and wells for which it is responsible. Without such information, the agency has no assurance that all individuals who are responsible for paying royalties are in fact making payments.

The Geological Survey, however, has decided to prepare its lease master file--a list of leases and payors--from data in the existing system--data the agency is not certain is complete and accurate. If payors are not listed in the current system, they are unlikely to be listed in the new system data base. In order to obtain information related to the total number of leases it is responsible for, the Geological Survey should consult with the Bureau of Land Management and the Bureau of Indian Affairs. Unless it can maintain exact accountability for leases and payors, the agency will be hampered in its efforts to manage and monitor royalty collections.

Besides determining who should pay royalties, the Geological Survey must also determine the amount due. In the current system the amount of royalties due is computed and compared with the amount paid by the oil and gas companies. If differences occur, as they frequently do, a balance will appear in the lease account. If properly used, this control can provide a means of identifying troublesome lease accounts and companies.

In the new royalty accounting system the Geological Survey will no longer recompute the royalties owed. This will place even greater reliance on the oil and gas companies for the accuracy of the information received, especially since the same company will be submitting both the royalty payment and the sales report. Although some reliance on oil and gas company data will always be necessary the Geological Survey must reduce this reliance to the extent possible and determine the reasonableness of the data reported. By eliminating this control feature, the Geological Survey could be hampering its ability to detect problem lease accounts and/or companies that might be reporting inaccurate or incomplete data.

Another area of concern is the Geological Survey's planning for the production phase. This phase is extremely important because of the need to alleviate the reliance on information reported by the oil and gas companies. The Geological Survey has an overall concept for the production phase but has not developed plans for how this phase is to operate and how it will interface with other phases of the system. The contractor, in a letter accompanying its offer, stated that the production phase is critical to the improved royalty accounting system and is so complex in concept itself, so incompletely defined, that it requires an absolutely all out effort. Priority, however, has been placed almost solely on the accounting phase.

In the request for proposal for the accounting phase, the Geological Survey asked the contractor to also determine the data requirements for the production phase, how the information will be used, and how it will interface with the accounting phase. The Geological Survey is initially relying on the contractor to define the production phase and how it will work. It is the user's responsibility--in this instance the Geological Survey--to outline to the contractor the information needed to make the production phase a viable part of the improved royalty accounting system. For example, the Geological Survey must determine whether the production phase will make use of such information as runtickets and meter readings. In addition, the agency must define the parameters that will be used for determining if the reported product value is accurate.

Geological Survey officials pointed out that agency personnel are working closely with the system contractor and stated that requirements for the production phase have not been defined because the agency does not want to constrain the contractor's creativity. The agency has hired a consultant to monitor the contractor's progress and ensure that all milestones are met, and will make the final determination itself as to the design of the production phase, based on the contractor's recommendations.

Although these actions will help ensure the success of the redesign effort, we are still concerned that the requirements for the production phase have not been defined by the Geological Survey at the outset.

In our view it is critical that the Geological Survey, as the user, better define its needs. The most important step in developing a system is determining the requirements. Not only must problems be identified and defined; agency officials must also agree on the scope of the system needed. Planning is very important in developing and designing an accounting system. If the system is not well planned, its chances for success are diminished.

As discussed previously, we are also concerned that the Geological Survey does not have a comprehensive, systematic plan for

monitoring, reconciling, and auditing lease account records; inspecting leases; and verifying production and sales data. The agency has not developed such a plan even though it recognizes the importance of inspections and audits as integral parts of the royalty accounting system and is hiring additional inspectors, auditors and accounting technicians. Under the new system it will be imperative that the Geological Survey seek secondary sources to verify production and sales data. The States are a potential source of this information. The Geological Survey should also coordinate with the States to arrange sharing of the audit and lease inspection function.

Historically, Federal agencies have experienced problems in designing and implementing financial management systems because sufficient management attention has been lacking. In some cases, agencies have spent tens of millions of dollars developing systems that do not adequately work after years and years of development. Slippages and cost overruns are commonplace. So that its new system does not succumb to the problems encountered by other agencies in designing and implementing new systems, the Geological Survey must give the effort sustained high priority with long term involvement of top management. An effective accounting and financial reporting system will result only if top management, within the Department of Interior and the Geological Survey, remain involved. The ongoing impetus to redesign the system must continue.

In this regard we believe the Geological Survey can benefit from the information in two GAO publications. Our May 1979 publication, "Managers, Your Accounting System Can Do a Lot For You," includes a full discussion of how accounting systems can provide information to help managers perform their responsibilities more effectively. A series of case studies illustrates how accounting and financial reporting systems can function as an integral and vital part of an agency's managerial control and decisionmaking process. These case studies are from our experiences in auditing accounting systems and the problems and successes of agencies and consultants in designing and operating accounting systems.

Our August 1976 publication, "Lessons Learned in Acquiring Financial Management and Other Information Systems," focuses on how managers should be involved in system design and implementation projects from initial goal setting through final testing, debugging, and implementation of a new or revised system. Case studies and checklists guide managers through this often complex project and help ensure that the new or revised system will give them the information they need when they need it, and that the goals they set for the system are achieved.

Question 13: The collection of oil and gas royalties is a complex process. What factors contribute to the Geological Survey's difficulty in attaining effective financial management over royalty collections?

Response:

As discussed in our April 1979 report, achieving financial management over the collection of oil and gas royalties is difficult because many factors are involved in determining the amount of royalties owed and who owes them. Failure to consider these factors or errors made in considering them can affect many lease accounts and cause difficult and time consuming problems. In its attempts to determine and collect royalties owed, the Geological Survey must require and handle a large volume of reports on Federal and Indian leases. The workload of processing these oil and gas lessee reports is further increased by the proliferation of lease interests. New lease interests are continually created; existing ones are transferred, reassigned, or sold.

Once a Federal or Indian lease has been awarded, it is common for other parties to become involved in the various activities associated with producing and selling the oil and gas. It is not unusual for as many as eight interests to be involved in a lease. Often each requires a separate lease account. When multiple lease interests sell their portions of the oil and gas produced, any or all may report to the Geological Survey. This proliferation of reports creates a paperwork blizzard for the Geological Survey. Agency officials said an inordinate number of employees are used merely to process the high volume of additional reports created by multiple lease interests. Little time has been available to ensure accuracy or completeness of information.

Determining and collecting royalties is also complicated by unit agreements, in which holders of different leases agree to combine production efforts. Unit agreements (1) introduce more multiple lease interests that may or may not be responsible for reporting oil and gas sales and paying royalties, (2) generate additional leases, (3) necessitate changes in allocating the oil and gas available to the various lease interests to sell, and (4) sometimes introduce different royalty rates.

Finally, several types of leases, containing a variety of royalty provisions, are administered by the Geological Survey. These add another dimension to the complexities faced in determining oil and gas values.

CONCLUSIONS

The Geological Survey's oil and gas royalty accounting system is still fraught with serious financial management problems, although it has been over 20 years since we first reported that the agency could not properly collect all royalties due from Federal and Indian leases. We are most encouraged by the decision to develop a new royalty accounting system. For the first time, the financial management aspects of the royalty program are being emphasized. Such emphasis is long overdue.



It is, of course, too early to tell whether the new system will fully correct the problems. However, if the system is effectively planned, designed, and implemented and if adequate resources are provided, it should enable the Geological Survey to more accurately account for and control royalty payments. Until then, the agency will be hard pressed to fully carry out its responsibilities.

In its development of the new system, we believe it is imperative that the Geological Survey not only address the problems in the current automated accounting system but also gain control over the reliability of information reported by oil and gas companies. A comprehensive, systematic plan must be developed for reconciling and auditing lease account records, inspecting leases, and verifying production. Necessary resources must be determined and milestones established. The Geological Survey's existing accounts must also be reconciled.

We emphasize that the problems discussed in this report can be corrected, but only if they are given high priority and sustained effort. The ongoing impetus to redesign the system must continue and improved royalty accounting must receive top management attention for the program to succeed. It will be a difficult job, but it can and must be done. The Geological Survey has established the momentum; it is important that it now follow through with a long term commitment since hundreds of millions of dollars are at stake. The establishment of the Commission on Fiscal Accountability of the Nation's Energy Resources is an important step toward resolving the royalty accounting problems and symbolizes the commitment of the Secretary of the Interior.

#### RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

To ensure that development of the new royalty accounting system is given a high priority and sustained effort, we recommend that the Secretary of the Interior closely monitor the work to see that the system is properly planned, designed, developed, and implemented. In this regard immediate attention must be given to determining how the production phase will operate and how it will interface with the accounting phase which is currently being designed. Also, in developing the accounting phase, the Geological Survey must acquire data on the number of leases and wells for which it is responsible and provide for verification of the royalty computation. The necessary resources must be provided and milestones must be strictly adhered to.

We further recommend that, to gain control over information reported by the oil and gas companies, the Secretary direct the Geological Survey to include in its current redesign effort a comprehensive, systematic plan for monitoring, reconciling, and auditing lease account records; inspecting leases; and verifying production and sales data. The plan should provide for (1) establishment of a detailed audit plan for periodic reviews of lease

accounts and oil and gas companies' accounting records, (2) devotion of additional resources to the inspection of leases, using field inspectors to help verify data reported, (3) coordination with the States to arrange the sharing of audit and lease inspection functions and the exchange of production and sales information, (4) reconciliation of existing lease account records to the extent possible, (5) identification of staff needs and resources for assessing interest on late payments, and (6) faster deposit of royalty payments, using electronic funds transfer when possible.

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 General Accounting Office  
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 Washington, D. C. 20548

Dear Mr. Scantlebury:

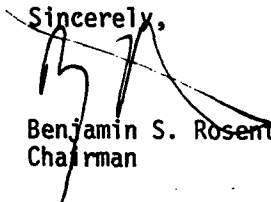
The subcommittee which I chair, the Subcommittee on Commerce, Consumer, and Monetary Affairs of the House Government Operations Committee, has oversight responsibility for financial transactions involving the U.S. Treasury. Government activities which directly bear on or influence U.S. revenues are therefore of continuing interest to the subcommittee. On April 13, 1979, GAO issued a report entitled "Oil and Gas Royalty Collections -- Serious Financial Management Problems Need Congressional Attention" (FGMSD-79-24) the work for which was accomplished under your direction. I am requesting that you update your study and report in writing to the subcommittee your findings as to the following:

1. Does the Geological Survey now adequately measure the amount of oil produced on Government lands to ensure complete and accurate royalty billing?
2. Does the Geological Survey identify the various types and quantities of oil produced on Government lands and leases, i.e., upper tier, lower tier, marginal, tertiary, etc.? Is Geological Survey capable of doing so to ensure correct royalty and tax receipts to the U.S. Treasury?
3. Outline briefly the Geological Survey's and the Treasury Department's role and responsibility for ensuring accurate and timely deposit of receipts relative to oil production where the Federal Government has an interest. Identify any failings or shortcomings in this process.
4. To what extent do present laws, regulations and contracts permit the Federal Government to control or influence the rate of oil production on federally leased lands so as to ensure maximum systematic royalty collections? To the extent these exist, have they been appropriately used by the Geological Survey?

5. Since the royalty payment is based on the price of the oil, it is imperative that a fair and accurate method exist for determining the price of the crude oil. Explain the existing process of pricing the crude oil produced on Federal lands. How does the price of oil produced on Federal lands compare to the market price of comparable quality crude oils sold in "arms-length" transactions? How does it compare to the "landed cost" of comparable crude oils? Does the existing pricing mechanism permit integrated firms to reduce the transfer price of the crude oil for royalty payment purposes?
6. Can the payment mechanism be changed? If so how, and by whom? Has this occurred in the past, and why?

Please respond by September 30, 1980. Owing to the time constraints faced by the subcommittee and the timeliness of the issues involved, I request that you respond to this request by letter (rather than by issuing a formal report) on or before September 30, 1980. Please be advised as well that you may be asked to testify before my subcommittee this fall. If you have any questions please contact Mr. Peter S. Barash (225-4407).

Sincerely,



Benjamin S. Rosenthal  
Chairman

BSR:av

GAO Note: It was subsequently agreed with the Chairman's office that we would testify on the Geological Survey's collection of oil and gas royalties and the impact on payment of the windfall profit tax on April 13, 1981, and issue a final report by October 1981. Also, as agreed with the Chairman's office, questions 4, 5 and 6 have been modified or deleted and additional questions added concerning the Geological Survey's system for collecting oil and gas royalties.

Problems at Geological Survey Reported  
On by GAO and Department of  
Interior Internal Auditors

<u>Problems</u>	<u>Reported by</u>	
	<u>GAO</u>	<u>Internal auditors</u>
Reliance on oil and gas company data for computation of royalty payments	December 1959 February 1972 April 1979	June 1975
Inaccurate lease account records--large debit and credit balances distorting accounting records	December 1959 April 1979	June 1975
Inadequate audits and reconciliations of lease accounts	December 1959 April 1979	June 1975 February 1977
Royalties collected late or not collected in full	December 1959 April 1979	June 1975
Charging interest on late payments	April 1979	June 1975
Sales and production data not verified	February 1972 April 1979	June 1975 February 1977
Inadequate valuation of oil and gas prices for royalty purposes	February 1972 April 1979	June 1975 May 1980
Staffing problems not adequately addressed	April 1979	June 1975

OBJECTIVES, SCOPE, AND METHODOLOGY

The Chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations, requested that we follow up on our report titled "Oil and Gas Royalty Collections--Serious Financial Management Problems Need Congressional Attention" (FGMSD-79-24, Apr. 13, 1979). The Chairman also asked a series of questions on the financial management of the oil and gas royalty program and the implementation of the Crude Oil Windfall Profit Tax Act of 1980 as it related to Federal oil.

The objectives of our review were to

- follow up on our April 1979 and earlier reports which identified deficiencies in the Geological Survey's collection of oil and gas royalties, and
- determine the impact of the Crude Oil Windfall Profit Tax Act of 1980 on the collection of royalties.

We conducted our review at the following U.S. Geological Survey locations:

- Headquarters, Reston, Virginia
- Eastern Area Office, Washington, D.C.
- Gulf of Mexico - OCS Operations Area Office, Metairie, Louisiana
- Northern Rocky Mountain Area Office, Casper, Wyoming
- Southern Rocky Mountain Area Office, Albuquerque and Roswell, New Mexico
- Western Area Office, Los Angeles, California

We reviewed pertinent laws, regulations, policies, and procedures. We interviewed Geological Survey officials responsible for the planning, designing, and implementation of the new accounting system and those responsible for the accounting, auditing, and inspecting functions in the present accounting system. We concentrated on the deficiencies in the Geological Survey's present accounting system and the controls over and accuracy of the royalty collections. We also gave close attention to the proposed system and its ability to properly account for and collect future, as well as past, royalty payments. We discussed our work with the Inspector General staff of the Department of the Interior and considered the findings in their audit reports pertaining to the royalty collection program.

As requested by the Chairman, we did not obtain official agency comments. However, the matters covered in the report were

discussed with Department of Interior and Geological Survey officials and their comments were considered in preparing the report.

### Sampling methodology

We used statistical sampling to select lease account records, which we then reviewed for errors and for estimating the number and dollar amount of late royalty payments and the additional interest costs incurred by the Government because of late payments. We assumed that, had late royalty payments been received when due, the Treasury's borrowing could have been reduced.

The information in our 1979 report was based on a sample of 714 lease accounts randomly selected from the total 22,735 lease accounts maintained by the Geological Survey on July 31, 1978. This followup work is based on royalty payments for oil and gas sales during April, May, and June 1980 on 275 lease accounts randomly selected from the 714 lease accounts reported on earlier. Because the 275 accounts were randomly selected from another random sample, the information obtained from them can be used to draw conclusions about only the 22,735 lease accounts. Selecting from the sample used earlier allowed us to expedite our followup review.

Statistical sampling enables us to draw conclusions about the universe of interest from information contained in a sample of that universe. The results are always subject to some uncertainty, or sampling error, because only a portion of the universe has been selected for analysis. The sampling error consists of two parts: confidence level and range. The confidence level indicates the degree of confidence that can be placed in the estimates derived from the sample. The range is the upper and lower limits between which the actual universe value will be found. The results of our calculations for the 3-month period are shown below.

	<u>Universe estimate</u>	<u>Range at 95% confidence level</u>	
		<u>Lower limit</u>	<u>Upper limit</u>
Value of late payments	\$98 million	\$64 million	to \$133 million
Number of late payments	19,589	17,026	to 22,152
Interest costs	<u>a/</u> \$409,000	\$209,000	to \$609,000

a/ In computing this cost, we used the 11.96-percent interest rate for the 3-month market yield on U.S. Government securities for calendar 1980, as reported by the Government Finance Section of the Federal Reserve Board.

EXPLANATION OF THE CRUDE OIL  
WINDFALL PROFIT TAX ACT OF 1980  
AS IT APPLIES TO FEDERAL OIL ROYALTIES

The Crude Oil Windfall Profit Tax Act of 1980 was enacted on April 2, 1980. The act imposes an excise tax on domestically produced crude oil removed from the leased wells after February 29, 1980. The tax is levied on the difference between the adjusted base price and the sales price of the oil. Basically the law

- taxes the excess of the sales price of a barrel of oil minus the adjusted base price;
- levies a tax rate applicable to the category or "tier" of the taxable crude oil, and
- exempts from the tax the oil attributed to qualified government interests, qualified charitable interests, certain Indian oil, and certain Alaskan oil.

Revenue generated by the tax is to be used for income tax reductions (60%), low-income assistance (25%), and energy and transportation programs (15%).

Temporary IRS regulations, issued on April 4, 1980, charged the Geological Survey with responsibility for computing and depositing the windfall profit tax applicable to royalty-in-kind oil revenue. Revenues are classified as royalty-in-kind when the Government, instead of collecting monetary royalties directly from the lease interest, takes a portion of the oil produced under a Federal lease and sells it to small refineries.

The Geological Survey had limited responsibilities for computing and depositing the windfall profit tax on oil royalties generated from Federal land between March 1, 1980, and March 31, 1981. At its own request, it was given the added responsibility for collecting and depositing the windfall profit tax on all Federal oil starting with the April 1981 production month.

For the Geological Survey to compute the windfall profit tax, it must receive from the oil companies the sales price, base price, and tier category of the oil. Before passage of the act, the Geological Survey did not require such data. The volume of data it must process has now greatly increased.

The windfall profit is determined by subtracting the base price from the sales price of the oil sold. The tax is then calculated by applying a tax rate applicable to the tier category to the windfall profit. There are three tier categories, two of which have subclassifications. There are also four different tax rates varying from 30 to 70 percent. The windfall profit tax is not in addition to the royalty collection--it is assessed on the royalty and subtracted from the oil royalties collected by the Geological



Survey. A specific portion of the royalties is returned to the State, based upon the type of land leased. In most instances, 50 percent of onshore oil royalties is distributed to the State in which the lease is located, and 50 percent is placed in the Treasury, which in turn redistributes it to other Government activities based upon instructions received from the Geological Survey. In effect, the tax reduces the amount of money that would have been distributed to the States and Government. In the case of an offshore lease, the States do not share in the royalties.

The following hypothetical example shows how the windfall profit tax is calculated and its effect on the distribution of royalties for an onshore lease.

Assume a lease is producing oil at the rate of 5,000 barrels a month and is located on federally leased public land. The base price of the oil is assumed to be \$13 a barrel, the royalty rate is 12-1/2 percent, and the oil was sold for \$38 per barrel. The windfall profit tax rate is 70 percent.

	<u>Pre-windfall profit tax</u>	<u>Post-windfall profit tax</u>
Gross proceeds (5,000 barrels x \$38)	\$190,000	\$190,000
Royalty rate	12-1/2%	12-1/2%
Royalty owed the Government	\$ 23,750	\$ 23,750
Windfall profit tax due the Government [(\$38 - \$13) x 5,000 x 12-1/2% x 70%]	-	(\$10,938)
Amount of royalty available for distribution	\$ 23,750	\$ 12,812
To the State	\$ 11,875	\$ 6,406
To the Treasury	\$ 11,875	\$ 6,406

For an offshore lease, the effect of the windfall profit tax would be different. Royalties from these leases are all deposited in the Treasury, not distributed to the States. Assuming the same

situation, except with a royalty rate of 16-2/3 percent, the impact of the tax on royalties collected from an offshore lease would be as follows.

	<u>Pre-windfall profit tax</u>	<u>Post-windfall profit tax</u>
Gross proceeds (5,000 barrels x \$38)	\$190,000	\$190,000
Royalty rate	16-2/3%	16-2/3%
Royalty owed the Government	\$31,673	\$31,673
Windfall profit tax due the Government [(\$38 - \$13) x 5,000 x 16-2/3% x 70%]	-	(\$14,586)
Royalty available for dis- tribution to other Govern- ment activities	\$31,673	\$17,087

SCHEDULE OF GEOLOGICAL SURVEY ESTIMATED ROYALTY  
COLLECTIONS FOR FISCAL 1980-1990  
(millions)

Fiscal year	Outer Continental Shelf			Onshore oil and gas			Onshore mining					
	Oil	Windfall profit tax	Gas	Total	Oil	Windfall profit tax	Gas	Total	Coal	Other	Total	Grand total
1980	\$ 723	\$ (145)	\$ 1,222	\$ 1,945	\$ 439	(76)	\$ 239	\$ 678	\$ 33	\$ 49	\$ 82	\$ 2,705
1981	1,375	(480)	1,600	2,975	633	(190)	314	947	39	55	94	4,016
1982	1,679	(840)	3,334	5,013	774	(333)	644	1,418	48	59	107	6,538
1983	1,785	(893)	5,101	6,886	824	(355)	992	1,816	58	59	117	8,819
1984	1,920	(960)	6,935	8,855	886	(382)	1,351	2,237	69	60	129	11,221
1985	2,076	(1,038)	8,835	10,911	969	(414)	1,713	2,682	148	62	210	13,803
1986	2,250	(1,125)	9,719	11,969	1,051	(450)	1,911	2,962	181	64	245	15,176
1987	2,364	(1,182)	10,602	12,966	1,115	(474)	2,098	3,213	427	66	493	16,672
1988	2,495	(1,247)	11,702	14,197	1,178	(502)	2,319	3,497	597	68	665	18,359
1989	2,600	(1,300)	13,503	16,103	1,240	(525)	2,733	3,973	699	70	769	20,845
1990	2,714	(1,357)	14,670	17,384	1,297	(550)	2,973	4,270	864	72	936	22,590

NOTE: Windfall profit tax applies only to oil.