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REPORT TO THE CONGRESS

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More Specific Policies And Procedures Needed For Determining Royalties On Oil From Leased Federal Lands B-118678

Geological Survey

Department of the Interior

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

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

B-118678

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on more specific policies and procedures needed for determining royalties on oil from leased Federal lands. The Geological Survey of the Department of the Interior is responsible for the supervision of oil production on leased Federal lands.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget, and to the Secretary of the Interior.

Elmer B. Staats

Comptroller General
of the United States

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WHY THE REVIEW WAS MADE

Companies must pay royalties on oil sold or removed from land leased from the Federal Government. At the option of the Government, royalties may be paid in oil or in cash. If paid in cash, the amount of the royalty is based on the value of the oil sold.

The Geological Survey of the Department of the Interior is responsible for the supervision of oil production on leased Federal lands, maintains oil production accounts, and collects oil royalties.

Because a prior GAO review had disclosed a number of deficiencies in Survey's controls over royalty payments, the General Accounting Office (GAO) made a follow-up review of these controls.

The review included leases of Federal lands in California, Colorado, Montana, New Mexico, Utah, and Wyoming. Oil royalties in the six States amounted to about $67 million, or 87 percent, of the $77 million of oil royalties from all Federal lands in 1970 except offshore sites.

FINDINGS AND CONCLUSIONS

Survey needs to strengthen its policies and procedures for determining whether proper royalty payments are made to the Federal Government for oil sold or removed from leased Federal lands.

Survey's regional officials have not evaluated adequately the reasonableness of many royalty payments because of the lack of adequate definitive criteria for determining the value of oil, including allowances for the cost of transporting the oil to the nearest sales market. (See p. 5.)

GAO noted several cases where information available to Survey's regional personnel indicated that the oil might have had a value greater than that used to compute the royalties due the Government. (See p. 8.) For example:

--One oil company purchased--directly or through subsidiary companies--most of the oil produced from a subdivision of a particular field and controlled the pipeline used to transport the oil to the sales market. The royalties for the period from December 1952 to October 1959 were either based on or identical to the market price of a nearby field less an allowance for transportation.

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On October 1, 1959, the price for oil produced from this subdivision was reduced 22 cents to 51 cents a barrel below the market price for oil produced in the nearby field. As of July 1, 1968, after further price changes, the price difference between the two fields ranged from 23 cents to 56 cents a barrel.

Survey did not have the necessary data to evaluate the reasonableness of this difference in value. (See p. 8.)

The volume of oil production used to compute royalties is determined from data reported monthly to Survey by the lessees. GAO noted that the extent to which the reported volume data was verified to other sources varied considerably in the three regional offices included in its review. Generally the verification was not as extensive as practicable. (See p. 22.)

RECOMMENDATIONS OR SUGGESTIONS

Survey should establish more definitive policies and procedures for use by its regional oil and gas supervisors in

--establishing the value of the oil sold or removed from leased Federal lands,

--determining the amount of transportation allowances to be deducted from the value of the oil, and

--verifying the amount of oil sold or removed from leased Federal lands. (See p. 27.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

Survey is reviewing and revising its operating manual to ensure that no procedural question can remain on the proper computation of royalty payments due the Government.

The results of GAO's review are also being used in the Department's analysis of lease management procedures for offshore oil and gas operations.

Survey also plans to investigate thoroughly the specific cases discussed in the report and determine corrective actions required. (See p. 28.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

This report is responsive to interest of congressional committees in the collection of proper royalty payments for oil sold or removed from Federal lands.

CHAPTER 1

INTRODUCTION

The Geological Survey, created by the act of March 3, 1879 (43 U.S.C. 31), is responsible for the supervision of oil production on leased Federal lands. This function, which includes the determination and collection of royalties, is performed by the Branch of Oil and Gas Operations of the Survey's Conservation Division through seven regional offices. Each regional office is under the direction of a regional oil and gas supervisor.

The disposition of oil in public lands is essentially governed by the provisions of the Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands. These statutes, which are codified in Title 30, United States Code, authorize the Secretary of the Interior to enter into leases with prospective lessees who meet certain qualifications.

The statutes require that leases provide for the payment of annual rentals of not less than 50 cents an acre and minimum royalties of not less than $1.00 an acre each year after discovery of oil. The Secretary of the Interior may establish a higher rental than the minimum specified by law. In cases where oil is produced from the leased lands, the obligation to pay rental ceases and the obligation to pay royalties arises. The royalty due the Federal Government is a percentage of the amount or value of the oil removed or sold from the leased lands at a rate specified in the lease.

At the option of the Government, royalties may be paid in oil or in cash. If paid in oil it must be delivered on the premises where it is produced and must be in merchantable condition at no cost to the Government. If paid in cash payment must be made by the last day of the month after the month that the oil produced from the leased lands is removed or sold.

The law provides that royalties received from oil produced from leased Federal lands in all States except Alaska be distributed as follows: 52.5 percent to the Federal Government reclamation fund, 37.5 percent to the State in which the land is located, and 10 percent to the U.S. Treasury. For Alaska the distribution of income is 90 percent to the State and 10 percent to the U.S. Treasury.

The value of crude oil produced from all Federal lands other than those on the Outer Continental Shelf (offshore) and the related royalty payments to the Government during calendar year 1965 through 1970 were as follows:

Calendar year	Total oil produced (in barrels)	Value of oil produced	Total royalty payments
1965	195,258,577	$ 530,317,622	$ 66,181,177
1966	201,615,754	554,335,259	68,014,352
1967	210,931,200	565,379,987	72,823,045
1968	216,163,740	572,412,549	73,335,908
1969	216,315,129	611,358,497	77,411,360
1970	210,379,192	609,615,608	77,019,051
Total	1,250,663,592	$3,443,419,522	$434,784,893

CHAPTER 2

NEED TO STRENGTHEN CONTROLS FOR DETERMINING THE ROYALTIES DUE FOR OIL PRODUCED FROM LEASED FEDERAL LANDS

Royalties payable to the Federal Government for oil sold or removed from Federal lands are required to be based on the value of the oil. If appropriate, allowances are deducted from the values for the cost of transporting the oil to the nearest sales market.

Our review showed that Survey's regional oil and gas supervisors had not made adequate evaluations of the reasonableness of many of the royalty payments. We were unable, however, to determine definitely whether the royalty payments were reasonable because Survey had not accumulated the information necessary to make such a determination.

The Department's regulations require that, for the purpose of computing royalties, Survey's regional oil and gas supervisors determine the reasonable value of oil sold or removed from Federal lands. Survey's manual provides that the value of oil used in determining the amount of royalty due the United States is the value at the wellhead and that, in the absence of a posted price[1] or other method of fixing the value at the wellhead, the value can be established only after consideration of prices being paid in the marketplace and the cost of transporting the oil from the well to the marketplace.

Survey has not, in our opinion, established adequate criteria for determining the value of the oil or the transportation allowances to be considered if appropriate. We believe that the lack of adequate guidelines has contributed to the inadequate evaluations of the reasonableness of many royalty payments.

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[1]The term "posted price" is the published price offered by a purchaser for oil in a certain field or area.

In a report issued to the Congress in 1959,[1] we pointed out that Survey was operating without a manual containing precise and up-to-date instructions, methods, and procedures and recommended that such a manual be developed. In response to our recommendation, the Branch of Oil and Gas Operations manual was issued in 1961. The manual, which has been revised from time to time, consists primarily of copies of memorandums--some of which were written as long ago as 1937--on oil and gas activities. Many of these memorandums merely point out how certain cases have been handled and do not provide definitive policies for the determination of royalty payments under all situations.

Royalty computations are based on the volume of oil sold or removed, as reported monthly to Survey by the lessees. We found that the extent to which the reported volume data was verified with other sources varied considerably in the three regional offices included in our review and that generally it was not as extensive as practicable.

Because of the significance of oil produced on leased Federal lands--over 1.2 billion barrels, valued at about $3.5 billion, from 1965 through 1970--we believe that the Government should have greater assurance that it is receiving the proper amount of royalties. We believe also that adequate criteria should be developed for use in determining the value of the oil and the transportation allowances and that procedures should be developed to provide for more verification of the volume of oil sold or removed from Federal lands.

Our detailed comments on the above matters are set forth in the following sections of this chapter.

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[1]Report on Review of Supervision of Oil and Gas Operations and Production on Government and Indian Lands by Geological Survey, Department of the Interior (B-118678, Dec. 31, 1959).

DETERMINATION OF VALUE OF OIL FOR COMPUTING ROYALTIES

Survey's regional officials advised us that, in determining the amount of royalties due from oil removed or sold from leased Federal lands, the regional policy had been to accept royalty computations based on the lessees' reported gross proceeds from the sale of oil as long as regional officials were convinced that the lessees were unable to obtain the highest posted price for oil sold in the same area. Regional offices generally have accepted the values--usually the gross proceeds from the sale of oil--reported by the lessees without making, in our opinion, an adequate evaluation of the reasonableness of the reported values.

The Department's regulations set forth various factors--such as the highest price paid for a part or for a majority of oil produced of like quality in the same field--to be considered in determining the value of oil for computing royalties due the Federal Government. Survey, however, has not established adequate operating procedures for use in evaluating the reasonableness of the prices at which oil is sold by the lessees, nor has it established procedures for ensuring that the various factors set forth in the regulations are considered. In our opinion, the lack of such procedures has resulted in Survey's generally accepting the values reported by the lessees.

In those cases where there is very limited or no competition for oil in a given area or where there are significant differences between the sales prices obtained and those of comparable oil in nearby fields, we believe it essential that Survey officials consider all pertinent facts and circumstances involved in establishing the sales prices and consider whether the prices are reasonable for use as the basis for computing royalties.

The operating instructions of the Branch of Oil and Gas Operations provide that the sales price available to a lessee may be accepted for computing royalties in the absence of (1) discrimination against lessees that are not engaged in all aspects of the oil industry, such as producing, refining, and marketing of oil products, (2) self-serving price setting by producer-purchasers, or (3) depressed markets due to the supply of oil's being greater than the demand.

The Department's regulations require that a lessee file with Survey's regional oil and gas supervisor copies of all contracts for the disposition of crude oil from the leased lands. The contracts for the sale of oil are subject to approval by the supervisor and specify the price to be paid to the lessee.

We found that royalties generally were computed on the basis of lessees' reported gross proceeds from the sale of oil. Certain information--such as the prices paid for oil produced from the same or nearby fields--available to Survey personnel at the time the value of the oil was reported raises questions as to the reasonableness of the prices received by the lessees. We believe that Survey's regional personnel should have exercised greater care in examining into the reasonableness of the sales prices. We believe also that the inaction by the regional personnel was largely attributable to the lack of procedures and direction by Survey headquarters.

Following are examples which, we believe, show a need for establishing adequate criteria to be used by Survey's regional officials in reviewing values of oil used for computing royalties due the Government.

Red Wash Field, Utah

The leased Federal lands in the Red Wash Field in eastern Utah are about 20 miles west of the Rangely Field, a major oil-producing area in western Colorado. Oil from both fields is transported through the same pipeline to refineries near Salt Lake City, Utah.

One oil company, either directly or through subsidiary companies, was the lessee of the Federal land; it purchased most of the oil produced from the Red Wash Unit--a subdivision of the Red Wash Field--and controlled the pipeline used to market the oil. This company, or its subsidiaries, has served in these capacities for most of the productive period of this unit and, since 1961, has established the only posted prices for the entire Red Wash Field.

The value used for computing royalties during the period from December 1952 to October 1957 for oil sold or removed from leased Federal lands in the Red Wash Unit was the Rangely Field posted prices, less an allowance for transportation of 11 cents a barrel. This allowance apparently included the estimated cost of heating and handling required to transport the type of oil produced from this field. The lessee and principal purchaser of the oil produced from the Red Wash Unit started posting prices as of October 1, 1957, for crude oil from the Red Wash Field. At that time prices for the Red Wash Field were 11 cents less than the posted prices for the Rangely Field.

On October 1, 1959, the posted price for oil produced in the Red Wash Field was reduced 22 cents to 51 cents a barrel below the posted price for oil produced in the Rangely Field, depending on the gravity of the oil. Further price changes increased the price differential between these two fields and by July 1, 1968, this difference ranged from 23 cents to 56 cents a barrel, depending on the gravity of the oil.

The price differential of 23 cents to 56 cents between the posted prices for oil produced in the two fields is quite significant. For example, if the posted prices for Red Wash Field had been the same as the posted prices for Rangely Field during calendar year 1968, we estimate that, on the basis of production data reported to Survey, the Government would have received additional revenues of $76,000 from the oil produced and sold from the Red Wash Unit. We believe that a price differential of this magnitude should have been examined into by Survey to obtain information on the differential and to evaluate its reasonableness.

The Survey regional office had no records that explained the reasons for the difference between the posted prices at the Red Wash and the Rangely Fields. We discussed this matter with regional office officials who advised us that no data was on file which explained the price difference or which showed that the price difference had even been reviewed by Survey personnel. On the basis of our discussions with regional officials, the regional petroleum accountant requested the lessee of the Red Wash Unit to submit detailed data that would explain the substantial difference in the posted prices in the two fields. The accountant's letter to the lessee stated that:

> "If the difference is due to transportation costs please provide adequate detail to support the deduction. If the difference is due to the quality of the crude please furnish data on refinery yields and values thereof."

In response to the accountant's inquiry, the lessee pointed out that the type of oil produced in the two fields was different in that oil produced from the Red Wash Field required considerable heating to handle. Further the lessee pointed out that crude oil similar in type to Red Wash oil was also produced from a number of other subdivisions of the Red Wash Field and that the oil companies operating in these areas had bought and sold oil after 1957 on the basis of posted prices for Red Wash Field. The lessee expressed the opinion that oil produced in the Rangely and Red Wash Fields had established fair market value in the competitive open market which exists in that area of Colorado and Utah.

Although the types of oil produced from the two fields may be quite different as stated by the lessee and although separate price postings for the two fields may be warranted, the information furnished by the lessee does not provide the necessary detailed factual data on which Survey can evaluate whether a price differential of 23 cents to 56 cents a barrel is reasonable. Regional officials, however, accepted the lessee's explanation and advised us that they planned no further inquiry into this price differential because royalties were being computed on the posted prices at Red Wash Field.

Even though no specific procedures or instructions require regional officials to obtain a full explanation of the circumstances surrounding the establishment of the posted prices at Red Wash Field, we believe that Survey should have obtained the detailed data requested by the regional petroleum accountant and should have evaluated that data to assure itself that the Red Wash posted prices were reasonable.

Lusk-Strawn Pool, New Mexico

Our review showed that Survey accepted values for royalty purposes for a substantial portion of the oil produced from the Lusk-Strawn Pool on the basis of sales prices which were less than the established posted prices for this pool.

During the period May 1963 through May 1966, over 10 million barrels of crude oil were marketed from the Lusk-Strawn Pool. Of this amount about 6 million barrels, or 59 percent, were sold at the posted prices, less transportation allowances. The posted prices paid, which varied depending upon the gravity of the oil, averaged about $3.00 a barrel. The remaining 4 million barrels were sold at $2.77 a barrel, less transportation allowances.

The lower prices resulted from amendments by two producers of their sales agreements with a principal buyer and pipeline operator who advised the producers that he had lost his market for the specific type of oil produced and that he could only sell this type of oil at a reduced price.

Survey officials advised us that Survey had agreed to accept the lower price on the basis of written representations by the two producers that Lusk-Strawn-type oil was in excess of demand and that most of the oil from this pool was being sold at reduced prices.

We believe that the reasonableness of the reduced prices is questionable because our analysis of sales of oil produced from this pool during the period from May 1963 through May 1966 showed that the principal buyer and pipeline operator, who stated that he had lost his market for the Lusk-Strawn-type oil, purchased an additional 2 million barrels of oil from producers at the regular posted prices. Most of these purchases were made on a recurring basis during the period from June 1963 to May 1966.

We believe that Survey should have established procedures to ensure that its regional personnel would examine all facts and circumstances involved in cases such as the one cited above to determine whether, and to what extent, a price reduction was justified.

Increased royalties of about $108,500 would have been realized by the Government from oil produced in this pool had royalties been based on the posted price for Lusk-Strawn oil rather than on the reduced sales price.

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In the cases cited and other cases noted, Survey personnel should have examined into the prices at which the lessees sold oil produced from the Federal lands. We did note, however, that Survey personnel had made an investigation into the prices at which certain lessees had sold oil and that this investigation had resulted in increased royalties to the Government.

In January 1968 a price investigation was initiated by the district engineer at the request of the Accounting Section of the Northern Rocky Mountain Regional Office because various lessees had not filed copies of their sales contracts with Survey. After making a comparison of the sales prices of oil produced from leased Federal lands in the area, the district engineer determined that a significant amount of the oil was being sold at less than the posted prices, some of which were as much as 33.5 cents below the prevailing posted prices.

District officials requested the lessees who had sold oil at less than the posted prices to state their reasons why royalties should not be computed on the basis of the established posted prices. As a result the lessees attempted to negotiate higher sales prices for their oil and most of the lessees--accounting for about 98 percent of the total production in the area--were successful in obtaining the posted prices for future sales. The producers who reported that they could not obtain higher sales prices for their production were permitted to continue paying royalties based on the actual sales prices.

As a result of the price investigation, additional royalty revenues of about $14,000 were paid to the Government during the first 5 months of calendar year 1968. Survey did not require, however, that the higher sales prices be applied on a retroactive basis. The district engineer advised us that the price disparities probably began in 1957 or 1958.

DETERMINATION OF ALLOWANCES FOR TRANSPORTATION COSTS

Survey's operating manual provides that, in determining a fair value for the purpose of computing royalties, the oil and gas supervisor may make a reasonable allowance for the cost of transporting the oil to the market.

Survey's Branch of Oil and Gas Operations manual provides that:

> "In general, transportation costs in full should be allowed by the supervisor after the lessee or operator files timely application, and complete investigation shows that the cost is correct under the best condition that can be reasonably obtained. Allowance may be the cost as paid by the operator in some districts or the equivalent reduction in the posted price when the oil is hauled by the purchaser in other districts.
>
> "Any allowance or deduction must represent reasonable actual cost to the operator, no more, no less. An application therefor should be filed by the lessee or operator and should contain such justification as the supervisor may deem proper and necessary. It should include a showing as to what efforts were made to obtain pipeline connection, what arrangements have been made informally or by contract for hauling the oil, whether the best available contract has been made for the disposal of the lease products, and whether proper and accessible storage and loading facilities have been provided on the lease. On the basis of such showing, and any investigation the supervisor deems necessary, a decision should be reached in the field as to the proper deduction and a copy of this decision forwarded to Washington for information. In any specific case where the supervisor has any doubt special instructions may be requested."

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"The supervisor should review his allowance cases periodically in order to determine whether the deductions continue to represent the actual costs under changing conditions that affect net realization to the operator under good management practices ***."

The manual, however, does not contain specific instructions on the extent to which factual data supporting the transportation allowances should be obtained and evaluated, nor does it contain definitive criteria which can be used by Survey's regional oil and gas supervisors in evaluating the reasonableness of transportation costs. For example, if the operator of a well located on leased Federal lands also owns and operates the pipeline through which the oil is transported to the market and a pipeline charge is considered in determining the royalties due the Federal Government, the manual does not require that the oil and gas supervisor ascertain the cost of operating the pipeline.

In addition, there are no guidelines to assist the supervisors in considering such matters as the extent to which profit may be included, if at all, in determining the cost of pipeline operations. We believe that the supervisors cannot properly determine the amount of transportation allowances to be approved unless Survey headquarters provide more definitive guidance than currently exists.

Most of the oil produced from Federal lands is transported from storage tanks at the field to the point of delivery specified by the purchasers. In instances where the pipeline-gathering systems operate as a common carrier, the transportation costs are based on tariffs that are subject to review by the Interstate Commerce Commission or by the appropriate State regulatory agency. In other instances where pipeline-gathering systems are owned by lessees of Federal lands and/or by purchasers of oil, the pipeline charges are not regulated by the Interstate Commerce Commission or by State regulatory agencies. The charges for transporting oil through these systems are established by the pipeline owners.

Survey's operating manual requires that allowances for transportation costs be approved in advance by its regional oil and gas supervisors. The manual provides that allowances based on tariffs established by regulatory bodies are considered to be fair and reasonable. Where no such tariffs exist, the instructions provide that the amount of the transportation allowances must be limited to actual costs to the operator, if reasonable.

In some areas served by common carrier pipelines, the purchasers of oil absorb all of the costs of transporting the oil from the well to the point of delivery. In other areas the purchasers may not absorb these costs and the posted oil sales prices at a field served by a common carrier pipeline is reduced by the amount of the applicable tariff to establish the value of oil to be used in computing royalties. In areas where the purchaser absorbs only a part of the transportation costs, the posted prices are reduced by the difference between the applicable tariff and the amount absorbed by the purchaser. For example, in north-central Wyoming the purchasers normally absorb a minimum of 5 cents a barrel for pipeline charges and the difference between the amount absorbed by the purchaser and the applicable tariff is allowed as a deduction from the value of oil used for computing royalties.

The purchaser of the oil may require that all transportation costs be deducted from the posted prices when oil is transported by means other than a common carrier pipeline from the central storage point to the point of delivery specified by the purchaser. The amount of such deductions and the delivery points where the posted prices are applicable often are not specified in the posted price listings. As a result although posted prices may appear to be comparable in a given area, the values used for royalty purposes vary substantially depending upon the extent to which pipeline transportation costs are borne by the purchaser and the extent to which transportation charges vary.

Although Survey's Branch of Oil and Gas operations manual provides that any allowance or deduction for transportation of oil must represent no more than the actual cost to the operator, if reasonable, the manual contains no procedures for ensuring that the allowances or deductions for transportation do not exceed actual costs. We found that certain lessees had deducted transportation allowances for pipeline-gathering costs for which sound and realistic cost data had not been obtained by Survey even though the reasonableness of the allowances appeared questionable. These deductions had been accepted by the regional oil and gas supervisors on the basis of the rates set forth in the sales agreements between the lessees and the purchasers.

The following examples illustrate the need for Survey to exercise greater care in examining and evaluating transportation costs as they relate to establishing the value of oil for computing royalties.

Wilson Creek Field, Colorado

The Wilson Creek Field, located on federally owned land in northwestern Colorado, was discovered in 1938. In 1941 two major oil companies, engaged in producing, refining, and marketing oil from this field, installed a pipeline system to transport the oil approximately 15 miles to a pipeline terminal at Iles, Colorado. On the basis of data reported to Survey by lessees, data published by the Oil and Gas Conservation Commission of the State of Colorado, and data contained in technical publications which provide information to the oil and gas industry, we estimate that more than 66 million barrels of oil had been transported through this pipeline as of December 31, 1969.

The agreement between the two companies stated that the pipeline was not to be operated as a public utility. In lieu of a tariff the companies agreed that 10 cents would be assessed and collected on each barrel of oil transported through the pipeline from the Wilson Creek Field into the receiving facilities at Iles. The agreement further provided for an equal division of profits between the two companies. In October 1944 the agreement was amended to reduce the pipeline transportation charge to 8.6 cents a barrel. Some of the lessees' sales contracts for oil produced from Federal lands in this field provide for the sale of crude oil at the applicable posted prices plus the applicable gathering and transportation charges. Royalty payments, however, have been based on the posted price. It appeared to us that, under the above circumstances, royalty payments should have been based on the lessees' actual gross receipts--that is, at the posted prices plus the 8.6 cents--from the oil sales, less the actual costs of transporting oil from Wilson Creek Field to Iles, if reasonable.

After bringing this matter to the attention of Survey's regional office personnel, the regional petroleum accountant requested the company operating the pipeline to furnish detailed information regarding its operations. The accountant pointed out that:

> "Our purpose in making inquiry about the cost of transporting the oil from Wilson Creek to Iles station was to help us establish the fair market value of the crude since posted price is only one item that contributes to the establishment of a fair market value. Of equal importance is the gross amount received by the lessee. Based on the evidence in our files we are not convinced that royalty is being paid on the fair market value since *** [one of the operating companies] is receiving a gathering allowance of 8.6 cents per barrel in addition to the price upon which royalty is being paid. If it can be established to our satisfaction that transportation costs incurred equal or exceed this 8.6 cent allowance we may agree that royalty is being paid on an equitable basis. Lacking that substantiating data, however, we must take the position that royalty has been underpaid for the past many years. As we mentioned in our earlier letter we understand that the gathering system is not a common carrier with a regulated tariff but rather is a privately owned system for which the co-owners *** establish the rate. It then follows that, if the rate so established is in excess of actual costs, an additional income could accrue to the unit owners since they are identical with the pipeline owners. If this situation occurs it seems only equitable that this increased income be considered when establishing the fair market value of the Wilson Creek crude. Our long standing policy has been to allow actual transportation costs when computing royalty, but not to allow deductions in excess of costs."

Information subsequently received by Survey from the company regarding cost and operating data indicates that during 1968 the cost for each barrel of oil shipped through the pipeline was 5.6 cents compared with the 8.6 cents a barrel charged the purchasers. It therefore appears that Survey should have received royalties based on the posted price plus 3 cents a barrel--the amount of the lessees' gross proceeds in excess of the actual transportation cost. Survey informed us that it was reviewing this case.

Maudlin Gulch Field, Colorado

The Maudlin Gulch Field, located on Federal land in northwestern Colorado, was discovered in 1947. In 1950 two of the three companies that held interests in the leases of this field completed a gathering pipeline from the field to the pipeline station at Iles, a distance of about 20 to 25 miles. We estimate that more than 5.8 million barrels of oil had been transported through this pipeline as of December 31, 1969.

The operator of the Maudlin Gulch Field owns a 52-percent interest in the pipeline through a subsidiary company that operates the pipeline. The other 48-percent interest in the pipeline is owned by the successor to a company that initially owned a substantial interest in the producing leases. The two companies agreed to establish a transportation charge of 12.5 cents a barrel. This charge has not been changed during nearly 20 years of operation.

Although Survey files contained documents executed by sellers of the oil which provided for sales to the operator at the posted prices, the oil value used for computing royalties at the time of our review was the same as the posted prices for a nearby field, less the difference between the transportation charge of 5 cents a barrel for the nearby field and the transportation charge of 12.5 cents a barrel for this field, or a net reduction of 7.5 cents from the posted price. The subsidiary company operating the pipeline purchases all production from the field; therefore, the oil subject to the transportation charge of 12.5 cents a barrel is purchased by the same interests that own the majority interest in the pipeline and that operate the field. The pipeline is not a common carrier and therefore the rates have not been reviewed by either a Federal or State regulatory agency.

In response to our inquiries, the Northern Rocky Mountain Regional Office informed the operator that it was Survey's practice to allow the deduction of reasonable amounts to defray the costs of transporting crude oil to market and requested the company to furnish cost figures for operating and maintaining the pipeline. The operator replied that the charge in question had been established pursuant to a 1950 contract and that therefore the requested cost data would not be appropriate or relevant. Survey has continued to accept the net transportation charge of 7.5 cents a barrel as a deduction from the posted price for oil in determining the value of the oil for computing royalties because the company holding the minority interest in the pipeline would not agree to a reduction in the rate of 12.5 cents.

We obtained the following information from the other company which owns a 48-percent interest in the pipeline.

> "The Maudlin Gulch pipeline was built in 1950 to gather oil from the Maudlin Gulch field and later the Danforth Hills field. The initial cost of the line was $215,000.
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> "During the early years of operation annual throughput was low. Even at the 12-1/2¢ per barrel gathering charge, the line did not pay out until 1968, or some eighteen years after it went into operation. During this period the revenue ranged from a low of $5,000 per year to a high of $29,000 per year, averaging only $15,000. In a number of years the income did not cover operating expense, much less interest and depreciation.
>
> "In 1967 another producing horizon was discovered in the Maudlin Gulch field, which resulted in a very substantial increase in throughput for the years 1967 through 1970, although by 1970 a rapid decline had set in. In fact, 74% of the revenue from the period 1950 through 1970 accrued in the four-year period 1967 through 1970.

"By taking the actual cash flow to the end of 1970 and using our projection on the future production from the field through its remaining life, which is estimated to run through 1980 and continuing the 12-1/2¢ per barrel gathering charge, we compute a DCF [discounted cash flow] rate of return on the investment of 9.9%."

We believe that Survey should obtain and evaluate detailed information from the owners of the pipeline regarding the various costs involved in operating the pipeline to determine whether the authorized transportation allowance is reasonable.

Lusk-Strawn Pool, New Mexico

Lessees of Federal lands at this pool sold oil to a purchaser under sales agreements that provided for payment at the posted prices less charges for transporting the oil through the pipeline-gathering system. The pipeline was owned by the purchaser who established the transportation charges which were not subject to review by Federal or State regulatory agencies. Although the pipeline charges represented an actual cost to the lessees, Survey had not determined its reasonableness before approving the deductions from the posted prices used in determining the value of the oil for computing royalties.

The pipeline-gathering system in the Lusk-Strawn Pool of southeastern New Mexico commenced operation in 1963. Sales agreements between two principal lessees of Federal lands and the purchaser of the oil provided that 12 cents a barrel was to be deducted from the posted price until a total of 2 million barrels had been transported through the line and that thereafter the charge would be 10 cents a barrel. The sales agreements also provided that they could not be terminated before 2 million barrels had been transported through the line. Survey approved this marketing arrangement but did not obtain cost data relating to the operation of the pipeline to evaluate the reasonableness of the transportation allowance.

In March 1967 Survey advised the two principal lessees, who had agreed to the transportation charge of 12 cents a barrel, that by January 1, 1965, about 2.5 million barrels of oil had been transported through the pipeline by all of the lessees in the area. Survey pointed out, however, that, from mid-1963 through mid-1966, large quantities of oil transported through the system had been sold at prices which were less than the normal market prices with a transportation charge of 9 cents a barrel. Survey pointed out also that the pipeline owner had recovered his original investment. Survey collected back royalties from the lessees computed on the basis of the transportation charge of 10 cents a barrel rather than the 12 cents that was originally used in computing royalties and advised the lessees that, beginning February 1967, the royalties should be calculated and paid on the basis of the market price for oil, less a maximum transportation charge of 10 cents a barrel.

In our opinion, Survey has not determined the reasonableness of the transportation charges of 12 cents, 10 cents, or 9 cents a barrel.

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The lack of specific guidelines for considering transportation allowances has resulted in regional officials' considering and evaluating transportation costs on such bases as they deemed reasonable. In our opinion, this situation has led to inconsistencies between regions and in some cases within regions, in allowing transportation costs.

To illustrate, Survey's Pacific regional personnel obtained cost data to support allowances for transportation. In one case where the transportation allowance was approved by the regional office, we noted that the cost data submitted in support of the allowance included a provision for profit and measuring (gauging) cost. We found that the Northern Rocky Mountain Regional Office in some instances obtained cost data to support allowances for transportation; however, a regional office official stated that he would not approve allowances including profit and gauging costs. We found also that the Southern Rocky Mountain Region approved transportation allowances without obtaining supporting cost data. Regional officials advised us that cost data had not been requested from the lessees because Survey had no need for cost data to approve requests for transportation allowances.

DETERMINATION OF THE VOLUME OF OIL ON WHICH ROYALTY IS PAID

Royalty computations are based on the volume of oil sold or removed, as reported monthly to Survey by the lessees. We found that the extent to which the reported volume data was verified with other sources (1) varied considerably in the three regional offices included in our review and (2) generally was not as extensive as practicable. Because of the significant volume of oil produced on Federal lands, we believe that Survey should improve its procedures for verifying the accuracy of the amount of oil removed from Federal lands.

The Department's regulations require that monthly royalty computations be based on the volume of oil sold and shipped and that the volume of oil be computed on the basis of tank measurements or meters approved by the regional oil and gas supervisors.

When oil is run from the lessee's or operator's tanks into a pipeline-gathering system or when oil is removed from the lessee's or operator's tanks into a truck, the quantity and quality of oil removed from the tank is recorded on a document known as a run ticket. These documents are required to be signed by the lessee or his representative and the purchaser who witnessed the measurements. Run tickets are required to be filed with the supervisor within 5 days after the oil has been removed and sold.

The Department's regulations provide that its oil and gas supervisors compile and maintain records of oil produced on leased Federal lands and that they determine the amount of royalties due the Government. In addition, the supervisors are required to render monthly statements to the lessee, or his agent, to show the amount of oil produced or sold and the amount of royalty due the Government from each lease.

Lessees of Federal lands and operators who control or manage operations on such lands are required to submit certain reports and documents relative to the measurement of oil production, including:

1. Lessee's Monthly Report of Sales and Royalty--when directed by the supervisor, a monthly report shall be made by the lessee showing the quantity of oil produced or sold from the leased Federal land and the royalty accruing therefrom to the Federal Government.

2. Lessee's Monthly Report of Operations--a separate report of operations for each lease to show the quantity of oil and other products produced.

3. Run ticket--a document which shows the meter readings or tank measurements of oil removed from storage tanks.

Because of the large volume of oil produced on Federal lands--over 1.25 billion barrels from 1965 through 1970--we examined the procedures used by three regional offices to verify the accuracy of the production reported monthly by the lessees and operators on which the payments of royalties to the Federal Government were based.

We found that one regional office compared the lessees' monthly reports with the supporting run tickets which showed the meter readings or tank measurements of oil removed from the leased Federal lands and which had been signed by a representative of the lessee and purchaser. Also this regional office received some statements monthly from purchasers of oil produced from Federal leases and compared this data with that submitted by the lessees. The other two regional offices did not compare the lessees' monthly report of production with the detailed supporting data. Purchaser statements are voluntarily submitted to these two regional offices in a large percentage of cases and this data is compared with data submitted by the lessees. In those cases where the purchasers do not submit monthly reports, however, no verification is made of the amounts reported by the lessees.

Detailed comments on these matters follow.

Pacific Region

The Pacific Region relies almost entirely on the run tickets submitted by lessees or operators to verify the amount of production on which royalties are computed.

Lessees or operators of leases submit run tickets which show for each transaction the quantity of crude oil sold, meter or tank readings, gravity of oil, and other pertinent information. Each run ticket is audited to ensure that (1) correct temperature adjustments were made to the gravity of oil reported, (2) proper adjustments were made for basic sedimentation and water, (3) beginning meter readings coincided with ending meter readings shown on prior run tickets, and (4) all computations were mathematically correct.

At the end of each month, lessees or operators of leases are required to submit a report showing the sales for the month, royalty due on sales, and other related data. The run tickets, which are certified by the seller and the buyer, are used by Survey to verify the information reported by the lessees or operators on the monthly reports.

Data furnished to us by Survey's regional officials indicated that a significant amount of the oil produced in the region involved intercompany sales. Run tickets supporting the production data shown on the monthly reports are required to be certified by representatives of both the lessee and the purchaser who in these cases were representatives of the same company. Data furnished by the regional officials also indicated that, where the seller and the buyer were different companies, in only a few instances did Survey receive a statement from the buyer concerning purchases from the seller.

For fiscal year 1969, the total quantity of oil from Federal lands under the jurisdiction of this regional office amounted to about 25 million barrels, valued at $58.8 million, on which the Government's royalty amounted to about $7 million. The quantity of oil sold is generally measured by either meters or other techniques. We were told that meters were more accurate for such measurement. A review of oil runs made during October 1969 showed that about 71 percent of the oil produced was metered.

Southern Rocky Mountain Region

To verify the amount of oil produced on leased Federal land as reported monthly by the lessees and used to compute royalties, this regional office relies primarily on comparing the amounts reported by lessees with amounts reported by the purchasers of the oil. This comparison is not made in all cases, however, because the purchasers are not required to submit monthly reports and some do not submit them.

We found that this regional office does not review and compare individual run tickets to the monthly reports submitted by the lessees. Thus, where purchasers do not submit reports of oil purchased, the regional office makes no verification of the volume of oil produced that is reported monthly by the lessees.

Regional officials estimate that they received purchasers' statements on 80 to 85 percent of the volume of oil sold. They estimate that 90 to 95 percent of these statements were received directly from the purchasers. Although no statistics were available to show the extent to which lessees and purchasers were companies involved in oil production, refinement, and marketing, Survey officials expressed the opinion that much of the oil was sold in arms-length transactions.

We found that district engineers did not make, as a normal procedure, field spot checks on volume-of-oil sales and oil-gravity tests or witness the calibration of meters which measure the oil that was transported through the pipelines. The Acting Regional Supervisor stated that spot checks on volume-of-oil sales and gravity tests are not performed due to lack of personnel, but that the existing controls--primarily comparing production data reported by the lessees with that reported by purchasers--were adequate to ensure accurate reporting.

Northern Rocky Mountain Region

We were advised by regional officials that this office compares volume data reported on the Lessee's Monthly Report of Sales and Royalty with the quantities shown on purchaser's statements, the pipeline operator's statements, or other supporting documentation to the extent that such documentation is available. The regional petroleum accountant advised us that he had received purchasers' statements which could be used to verify the volume reported on about 75 percent of monthly reports submitted by lessees of sales and royalties. Regional officials stated that no verification was made of the information shown on the run tickets and that no field visits were made to verify the accuracy of the volume determinations reported by the lessees.

CHAPTER 3

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Survey's present system of controls over royalties needs to be strengthened to provide greater assurance that proper royalty payments are made to the Government. In the absence of prescribed guidelines and procedures for uniform application by the regional oil and gas supervisors, reliance is based primarily on the individual supervisor's judgment. In our opinion, this has led to royalty computations' being accepted by the regional personnel without examining and evaluating all the circumstances surrounding the determination of the royalties. In many instances such determinations are based primarily on data furnished by the lessees without verification to other sources.

The lack of specific policies and procedures for use on an agency-wide basis has resulted in numerous inconsistencies in the manner in which regional oil and gas supervisors' have carried out their responsibilities for ensuring that royalties were based on (1) values which approximate the fair market value of the oil, (2) deductions for transportation costs which did not exceed actual costs, and (3) total quantities of oil marketed.

RECOMMENDATION TO THE SECRETARY OF THE INTERIOR

To provide greater assurance that royalty payments to the Government are computed properly, we recommend that the Director, Geological Survey, be required to establish more definitive policies and procedures to be followed by Survey's regional oil and gas supervisors in

--establishing the value of oil sold or removed from leased Federal lands,

--determining the amount of transportation allowances to be deducted from the value of the oil, and

--verifying the amount of oil sold or removed from leased Federal lands.

CHAPTER 4

AGENCY COMMENTS

The Department of the Interior, in commenting on a draft of this report on May 17, 1971 (see app. I), has stated that, in view of the current GAO findings and the large amounts of money involved, the Assistant Secretary has ordered that the present operating manual be reviewed as rapidly as possible and revised as necessary to ensure that no procedural question can remain on the proper computation of royalty payments due the Government.

In addition, the Department stated:

> "This action may be facilitated by a systems analysis of lease management procedures for oil and gas operations on the Outer Continental Shelf which is now underway. This study which includes consideration of revenue accountability, among other aspects of lease supervision, is expected to be completed by June 30, 1971. Copies of the GAO audit findings for onshore operations have been furnished the study team and will be considered to the extent applicable in their analysis. In this way it is hoped to obtain maximum 'transfer value' of study results to onshore revenue accountability consideration.
>
> "In addition, the Geological Survey will investigate thoroughly the *** specific audit findings in the report and determine corrective actions required."

CHAPTER 5

SCOPE OF REVIEW

Our review of the controls over royalties from production of crude oil on leased Federal lands in the States of California, Colorado, Montana, New Mexico, Utah, and Wyoming, was made at the Survey's Headquarters in Washington, D.C. and at the regional offices of the Survey's Branch of Oil and Gas Operations at Casper, Wyoming; Roswell, New Mexico; and Los Angeles, California. We also visited selected district offices and certain State Oil Conservation Commission and Public Utilities Commission offices.

We reviewed pertinent laws and regulations governing the Survey's supervision of oil production and determination of royalties due from oil produced from onshore Federal lands. We examined into the adequacy of Survey's controls over the determinations of the oil volume, and allowances for transportation costs and the extent to which the data submitted by lessees for royalty purposes had been verified.

We also examined into the adequacy of Survey's policies and procedures for determining the royalties and their effectiveness in ensuring that proper royalty payments are made to the Federal Government.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

Mr. Joseph P. Rother, Jr.
Assistant Director, Civil Division
General Accounting Office
Washington, D.C. 20548

MAY 17 1971

Dear Mr. Rother:

The Department of the Interior has reviewed with interest the GAO Draft Report, "Need to Strengthen Controls Over Oil Royalties from Leased Federal Lands." The basic conclusions and recommendations resulting from the audit state that present policies and procedures are not sufficiently specific and definitive to assure the appropriateness of royalty payments based on (1) values which approximate the fair market value of the oil, (2) deductions for transportation costs which do not exceed reasonable actual costs, and (3) total quantities of oil marketed.

The Survey's present operating manual was developed following earlier audit recommendations of the GAO referred to in their report and was intended to accomplish the objectives which GAO recites. However, in view of the current GAO findings and the large sums of money involved, the Assistant Secretary has ordered that the present operating manual be reviewed as rapidly as possible and revised as necessary to assure that no procedural question can remain that royalty payments to the Government are computed properly. A copy of the Assistant Secretary's memo is enclosed.

This action may be facilitated by a systems analysis of lease management procedures for oil and gas operations on the Outer Continental Shelf which is now underway. This study which includes consideration of revenue accountability, among other aspects of lease supervision, is expected to be completed by June 30, 1971. Copies of the GAO audit findings for onshore operations have been furnished the study team and will be considered to the extent applicable in their analysis. In this way it is hoped to obtain maximum "transfer value" of study results to onshore revenue accountability considerations.

In addition, the Geological Survey will investigate thoroughly the *** [see GAO note] specific audit findings in the report and determine corrective actions required.

[See GAO note.]

[See GAO note.]

We appreciate the opportunity to have commented on this draft report.

Sincerely yours,

J. J. Hall, Jr.

Director of Survey and Review

GAO note: Deleted comments pertain to material presented in the draft report which has been revised or which has not been included in the final report.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

MAY 11 1971

Memorandum

To: Director, Geological Survey

From: Assistant Secretary--Mineral Resources

Subject: Procedures for Royalty Accounting--Oil Production from Federal Leased Lands

The General Accounting Office audit of procedures governing the determination of royalties payable to the United States by private companies producing oil from onshore Federal lands identifies a need to review and strengthen existing controls over the determination of values, allowable transportation costs, and verification of volumes in determining Federal oil royalties.

Accordingly, the Geological Survey is directed to proceed immediately to review and amend its operating manual to provide adequate definitive policies and procedures for:

1. Establishing the value of oil production for royalty purposes,

2. Determining allowable transportation deductions,

3. Verifying volumes of oil sold from Federal leased lands.

Gene A. Morrell

Acting Assistant Secretary--Mineral Resources

PRINCIPAL OFFICIALS OF

THE DEPARTMENT OF THE INTERIOR

RESPONSIBLE FOR THE ADMINISTRATION OF THE

ACTIVITIES

DISCUSSED IN THIS REPORT

	Tenure of office			
	From		To	
DEPARTMENT OF THE INTERIOR				
SECRETARY OF THE INTERIOR:				
Rogers C. B. Morton	Jan.	1971	Present	
Fred J. Russell (acting)	Nov.	1970	Dec.	1970
Walter J. Hickel	Jan.	1969	Nov.	1970
Stewart L. Udall	Jan.	1961	Jan.	1969
ASSISTANT SECRETARY OF THE INTERIOR (PUBLIC LAND MANAGEMENT):				
Harrison Loesch	Apr.	1969	Present	
Vacant	Jan.	1969	Apr.	1969
Harry R. Anderson	July	1965	Jan.	1969
Vacant	Jan.	1965	July	1965
John A. Carver, Jr.	Jan.	1961	Dec.	1964
ASSISTANT SECRETARY OF THE INTERIOR (MINERAL RESOURCES):				
Hollis M. Dole	Mar.	1969	Present	
J. Cordell Moore	Aug.	1965	Feb.	1969
Vacant	June	1965	Aug.	1965
John A. Kelly	Mar.	1961	June	1965
GEOLOGICAL SURVEY:				
Vincent E. McKelvey	Dec.	1971	Present	
William A. Radlinski (acting)	May	1971	Dec.	1971
William T. Pecora	Sept.	1965	May	1971
Thomas B. Nolan	Jan.	1956	Sept.	1965

Copies of this report are available from the U. S. General Accounting Office, Room 6417, 441 G Street, N W., Washington, D.C., 20548.

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