



## United States Department of the Interior

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FEB 12 1987

### Memorandum

To: Director, Minerals Management Service

From: Associate Director for Royalty Management

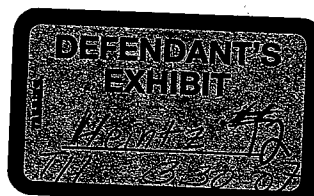
Subject: Review of Analysis Titled "Crude Oil Royalty Valuation Monitoring System," by Bob Berman, Policy, Budget, and Administration

By memorandum of November 21, 1986, the Deputy Assistant Secretary, Policy, Budget, and Administration (PBA), suggested to you that further study be done of market-based approaches to royalty valuation under non-arm's-length conditions. He included an analysis dated November 28, 1986, by PBA's Bob Berman, who suggests the application of oil futures or spot prices as an alternative valuation methodology. Our comments on this analysis have been requested.

It is obvious that considerable thought and effort have gone into Mr. Berman's analysis. However, the inescapable conclusion is that, for purposes of oil royalty valuation, the application of futures and/or spot prices would be either contrary to existing law, lease terms, and regulations, or too impractical and nonspecific to administer. Listed below are our specific comments:

- The Mineral Leasing Act of 1920 (Section 17(b) and (c)) states that royalty shall be based on the amount or value of production removed or sold from the lease. The Outer Continental Shelf Lands Act of 1953 (Section 6(a)(8)) states that royalty is due on the amount or value of production saved, removed, or sold. There can be little doubt that the value of production removed or sold was intended to be the current value, for which a futures price would be inapplicable.
- Similarly, the various Federal and Indian leases require royalty on the amount or value of production removed or sold. Once again, futures prices would not, except coincidentally, reflect values of production sold currently.

RB 0122



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-- The existing regulations dealing with oil valuation, both onshore and offshore, address value of production, at the time of production or sale, for computing royalty. The regulations at 30 CFR 206.103 (onshore) state that, in the absence of good reason to the contrary, value based on the highest price paid or offered at the time of production for the major portion of like-quality products from the same field or area will be considered reasonable value. Similarly, the regulations at 30 CFR 206.150 (offshore) state that "Under no circumstances shall the value of production be less than the gross proceeds accruing to the lessee. . . ."

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These regulations require leasehold oil production to be valued as of the time of production and/or sale. Hence, any attempt to apply a futures price for royalty value purposes would necessarily incorporate the market's assessment of the level of oil prices at some future date. Obviously the futures prices would not necessarily be reflective of current market price levels as required by regulation.

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Though it may be suggested that current regulations could be changed to effect changes to royalty provisions of future leases, it is important to note that such rulemaking would need to conform with existing statutes. As previously mentioned, existing statutes indicate a royalty based on current value. Consequently, a change in statutory, as well as regulatory, language may be necessary to issue new leases with royalty provisions tied to futures values.

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-- Application of spot prices in valuing non-arm's-length disposals of lease production would not be specific. Spot prices are available only for a limited number of "benchmark" domestic crudes delivered at specific points; e.g., West Texas Intermediate at Cushing, Oklahoma. It is not clear how spot prices would be adjusted for differences in quality or necessary transportation between that of the "benchmark" crude and that of the crude to be valued. An adjustment for differences in API gravity alone, for example, while a reasonable price adjustment mechanism for oil produced in the same field or area, does not necessarily reflect true value differences when comparing crudes from distant areas. The price differences in crude oil nationwide depend upon a host of factors not limited solely to gravity and transportation adjustments. Factors important to the establishment of value of a particular crude include the need for and availability of crude oil supply, the cost of transportation to the refinery, the chemical composition and refining characteristics of the crude oil, the cost to refine the particular crude, the mix of refined products derivable from the crude and their values, prices currently paid or offered for the same or comparable crudes, and other economic criteria. Posted prices, which exist in all the important producing areas, reflect all these considerations; "benchmark" spot prices, on the other hand, cannot relate these factors specifically to each producing area. The same is true for futures prices, which also relate to a few "benchmark" crudes only.

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-- Mr. Berman's analysis speaks to "market-based" alternate valuation procedures; i.e., futures and/or spot prices. The implication that posted prices are not market prices is, of course, true to the extent that postings are offers to buy and do not always reflect prices actually paid. Postings are, however, driven by the market, are sensitive to market changes, and are adjusted as market conditions require. While posted prices may, on occasion, vary slightly from actual market prices, they are undoubtedly market based. The MMS would be hard pressed to defend a position that futures prices are better, more accurate, and more current measures of royalty value for current production than are concurrent posted prices. *only if you don't understand*

*among other things*

*Mkt in a certain basis*

-- Posted prices are widely available. They exist for nearly all fields and areas for which royalty valuation is necessary. Further, since a field posting relates to oil with the same general quality characteristics, quality-based price adjustments are simple and accurate. The same cannot be said for application of spot or futures prices for royalty valuation purposes. *why not*

-- A real inconsistency would develop if prices received under arm's-length conditions were accepted for royalty valuation purposes while futures prices were applied to non-arm's-length transactions. Two entirely different valuation standards would exist. (We agree that non-arm's-length transactions should receive a higher monitoring priority, and generally be investigated more thoroughly than arm's-length transactions. However, the standards to which each type of transaction is held should be as similar as possible.) If arm's-length prices are acceptable for royalty valuation purposes, a reasonable proxy for current non-arm's-length prices is not a futures price, but, rather, an assessment of what is currently being obtained under arm's-length conditions. *1% down 99%?*

*at a fault*

*why*

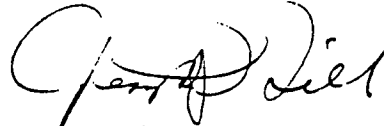
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In summary, even though Mr. Berman's analysis is a scholarly study which provides insight into the workings of the oil futures market, we must disagree with the application of oil futures or spot prices as a basis for royalty valuation in non-arm's-length situations. We have ignored the fact that the study covered a relatively short period of time (15 months) during which extreme pricing volatility took place, and we have not discussed other, more minor disagreements we have with the study. More important is the basic conclusion that, even if the study results do indicate that oil futures prices "lead" posted prices, this has no bearing on our valuation responsibilities. For royalty valuation purposes, we must apply market value existing at the time of production or sale. Whether postings are considered to lag futures prices or not, postings represent current offers to purchase oil and are adjusted as necessary to conform to market conditions. Further, oil futures and spot prices are available on such a limited basis as to make price adjustments for quality and/or transportation extremely difficult, if not meaningless.

*Mkt value*

It has been our policy in non-arm's-length situations to verify that the posting or other price to be applied for royalty purposes is consistent with prevailing arm's-length prices. This policy is, we feel, rightly extended in the proposed oil royalty valuation regulations. The continued acceptance of arm's-length postings or contract prices is seen as the most equitable, most practical, and most easily administered method of royalty valuation available. The widespread existence and acceptance of posted prices make them much more applicable to specific cases than oil futures or spot prices, both in terms of timing and necessary adjustments.

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Jerry D. Hill

RB 0125

