Mr. Jones. Yes. Senator Allorr. Or brought to a conclusion so that the interest of the public could in all respects be protected.

Senator Allorr. I think that is all I have, Mr. Chairman. Mr. Jones. Yes, sir.

The CHAIRMAN. Dr. Jones, you recommended a royalty of 5 percent. The leases in connection with the Outer Continental Shelf are not less than 12½ percent. They are presently set by regulation at 161/2 percent. You refer to this in your statement. What is the reasoning by which you come to this 5 percent figure?

Mr. Jones. Five percent, as I understand it, is a royalty that is applied to many minerals. This is not oil in the form of liquid-

hydrocarbons.

The CHARMAN. No; but the end product is oil.

Mr. Jones. The end product is oil. But we are talking about what you are starting with here, and, in our opinion, a lower royalty payment would be conducive to developing the shale oil industry at the

Now, as I have indicated earlier, to the extent that technical develmost rapid pace. opment allowed improved profits from this operation this, if we have any confidence in all of the past performance in such areas, would be reflected in bid prices on the lands that the companies leased from

the Federal Government for development. Admittedly, you can exchange the one for the other, and in the final analysis, I suppose, they are interchangeable. But as a system, I think we would be better off with a low royalty payment and look forward to the lease bids as being a common denominator so far as getting the best value for the Federal Government.

The CHAIRMAN. How do you answer the contention that we are dealing with known reserves here so you do not have the exploration costs? You do, however, have the development costs, which are substantial because we are dealing with a whole new problem, both from the stand-

point of research and from the standpoint of technology.

On the other hand, in the offshore operations I would suspect that the exploratory work is much more expensive. You are in deep water, you are getting into deeper water, you have all sorts of problems which you do not have in a land-based operation. How does one respond to

Mr. Jones. Well, I do not know that I can. I see little in common that kind of contention? between the offshore operations and the shale oil development. The only thing I see in common are the principles which I have emphasized

of competitive bidding for Government lands.

It is quite true that no exploration, or essentially none, would be involved in the shale oil development. You know where it is. There is a lot to be learned about its characteristics which you might call exploration, but which might more properly be called development.

But beyond the principles of lease acquisition, it is very difficult to

compare these two areas. They are essentially different.

The CHAIRMAN. I agree. But we have a higher royalty on the offshore production, which is in a more difficult area, than we have on the continent and the costs of exploration and operation offshore are substantially greater are they not?