

in off-shore oil development, received no analysis of analogous potash, oil and gas, coal and other resource programs where years of experience have provided precedents nor did we receive other bases for independent conclusions. Without that breadth of experience we could not objectively choose between methods. However, the Board purports to comment on methods. To this I object since the factual information before us did not justify, and to adopt views on methods is to accept proposals presented to us without exercising our independent judgment as to their justification.

The heavy emphasis in the Report on governmental Research and Development (R & D) is one example. No successful company proceeds without adequate investigation of techniques, market, economics, evaluation of resources and like matters to ascertain whether their hopes are sustained by hard facts. The report purports to give control to Government agencies on what is to be investigated and when such investigation is successful. If the Government officials are not satisfied they can perform the work themselves. If this is not the intent, the proposals could easily produce that result.

Similarly the Board received no briefing on departmental R & D programming. I see no justification for our recommendation for its improvement in the top paragraph on page 11. Other examples of assumptions without factual bases are the implications that no company is now ready to proceed, that all areas have identical problems, that all companies are at the same stage of development, that no new companies without private holdings are interested, that there would be no protection for other values without Federal action and that until more is known of this valuable resource, it cannot be entrusted to developers. Contrariwise, note that Union Oil Company is recognized as being in a stand-by position; that Piceance Basin deep deposits probably cannot be strip mined, but that Utah and other areas of deposits, might be; that the newspapers carry accounts of numerous applications seeking public land leases; that there is a State policing power; and that the off-shore oil lands were successfully developed with less knowledge of reserve than now exist on oil shale deposits.

Rather than to be merely a critic, I propose the following essential steps:

- (1) Lifting of the Executive Order withdrawal.
 - (2) Concurrently, issuing regulations prepared by Interior in consultation with interested parties preferably with a 6-month deadline.
- For consistence with the goals proposed by the oil shale Board on page 6, I suggest the following general provision.
- (a) A royalty, sliding scale royalty, periodically renegotiated royalties, or some combination to insure adequate revenue return to the Government, without destroying the economic feasibility of the oil shale industry.
 - (b) Putting up known deposits of oil shale for competitive lease upon either nomination by applications, or upon Government initiative.
 - (c) Fix the areas of each lease at 5120 acres, or such lesser amount as is found to be an economic unit to support the investment involved. (There are many ways to determine an economic unit. One, which I do not necessarily recommend, but which shows a method, is the pattern in many States of competitive bidding for tax land, where the amount is fixed, but the winner is the one who bids that amount for the least acreage).
 - (d) Require certain developments for each unit on increasingly stringent terms so as to minimize speculative holdings. Each unit should be considered separately.

- (e) Establish conservation goals and standards and provide contractually for them in leases, but recognize that oil shale production is itself a public interest factor and that when a lease is issued, it should not load the lessee with "conservation" costs so as to make production uneconomic.

The above states my essential views. I regret that time pressure makes more pointed and complete presentation impossible. Insofar as the Report is consistent therewith, I concur.

DISSENT OF MILO PERKINS FOR THE FINAL SECTION OF THIS REPORT

It has been clear since our first meeting seven months ago, that there was only one fundamental area of disagreement. This has run like a thread through all the many drafts of suggested reports submitted to the Board.

Some of us believe that our great shale oil resources should be developed by private industry, much along the lines which the Interior Department has supported in the case of our off-shore oil resources.