

some-odd. There are approximately 6,000 now in litigation, and the same group that I think the Solicitor mentioned recently. I think the remaining claims cover about 870 acres.

So it is a small part.

Senator MOSS. And the Navy has continued to cooperate with, and to some extent participate in, research and extraction of oil from shale, but made no effort to produce any oil for any military or commercial channels?

Captain MOORE. We are precluded by law from doing so until there is a national emergency.

Senator MOSS. Well, we may have had one or two in the last few years but you have not produced any.

Do you have any questions, Senator Allott?

Senator ALLOTT. Yes. Captain, I want to congratulate you on your statement because I think you have pointed out some of the questions which other people have not pointed out to date and which have not been highly developed.

No. 1, I assume it is your point of view—it has been mine for a long time—that the development of a viable oil shale industry is a necessity for the national defense and the national welfare.

Captain MOORE. It certainly is, Senator.

Senator ALLOTT. And I assume also, although you don't say this specifically, that the time is now, because the leadtime for the development of such processes, whether they be, you say *in situ* or by retort are going to require a long leadtime and the investment of vast amounts of money.

Captain MOORE. Yes, sir.

Senator ALLOTT. You have estimated from the figures given by the chairman of the board of one oil company that it will cost a hundred million dollars capital investment to establish one 50,000-barrel retort in this area.

Now, this fact—and this is the same figure that has been used by others—alone is of necessity going to influence any leasing policy developed by Congress, is it not?

Captain MOORE. I would think so.

Senator ALLOTT. In other words, you can't take a little dab of oil or a little dab of land and lease it and expect someone to make a hundred million dollars investment in order to develop this land.

Captain MOORE. No, sir. The only way he could profit at all, a small man, would be to supply a larger retort from his land.

Senator ALLOTT. One last question for you, sir.

There have been some very optimistic and perhaps rose-colored statements this morning about nuclear *in situ* development, and of course we all hopefully look forward to this, but you say on page 3 of your statement that there is no evidence to indicate that *in situ* retorting of oil shale is physically practical.

Now, the only point I want to make is that the present point of time, in this given area, we are literally like a baby taking its first step, are we not?

Captain MOORE. Yes, sir.

Senator ALLOTT. And that the nuclear experiments, Gasbuggy and others, that are now on the drawing board—and I know you are acquainted with others in this area, although not in the oil shale—are only first steps toward trying to develop such a process.

You are acquainted with the Rulison project, are you not?