
Energy Insider by William Engdahl

Michel Halbouty discusses the U.S. oil exploration potential

The following is an exclusive interview by EIR Energy Editor William Engdahl with Michel T. Halbouty, made in Houston, Texas on May 1, 1981. Halbouty, a past president of the American Association of Petroleum Geologists (AAPG), is one of the world's best-known independent consulting geologists. He has written and lectured throughout the world, and most recently served as chairman of the Energy Policy Task Force and subsequently, the Energy Transition Team for President-elect Reagan.

EIR: Richard Nehring of the Rand Corporation has just published an assessment, commissioned during the Carter administration, that pessimistically states "the petroleum industry is gradually running out of ideas as to where oil and gas may still be found in the United States." What is your evaluation of this Rand study?

Halbouty: This is something that should be stopped in the administration, where we go to consultants and spend billions of dollars every year for these reports, which are absolutely worthless, most of them. This [Rand] report here was made by people who are not knowledgeable in geology and geophysics. They don't have any idea what's going on. They don't know the contents of the earth to begin with. . . . And to have the U.S. Geological Survey and Department of Energy pay for these reports is just throwing our money away.

If the government wants to find out what our future resources are in minerals, and our future resources in energy, they should pay people who are knowledgeable in the field. I have yet to read a Rand Corporation report that has any merit. . . . They are entirely wrong about what we can find in the United States. . . . We can find as much oil and gas in the future in the United States as we have found up to this time, providing the government gets off our back and stays off our back. . . . The people that are with Rand, they just don't understand this. . . . They don't have petroleum geologists who have worked

in trying to explore for petroleum, and I mean real exploration. . . .

EIR: How do you evaluate prediction measures such as the so-called King-Hubbert curve that measures number of feet drilled versus number of barrels of new reserves discovered?

Halbouty: You take the King-Hubbert curve. That man did more damage to the thinking of Congress and in this country than any one man I know. That man was so pessimistic that it just created a pessimistic idea that we weren't going to find any more oil and gas. . . . We're going to find oil and gas way into the 21st century.

EIR: What, in your estimation, are the most promising new methods of exploration?

Halbouty: Seven years ago, if a geologist or geophysicist walked into the office of his superior and recommended



his company should drill into the Western Overthrust Belt, one of three things would have happened: he would have been fired immediately; he would have been put on the shelf and just forgotten; or they would have thought he was crazy. . . . The area was completely condemned. Now it's one of our most

prolific producing trends, extending from Canada all the way into New Mexico. And it's the same thing that's going to occur, in my opinion, in the Appalachian area, 100 miles further east than anybody has expected.

Not only that, we have the so-called subtle trap, which is a stratigraphic trap. We've got the paleogeomorphic trap, which we haven't explored for. And we've got the unconformity-oriented subtle trap which we ha-

ven't explored for. . . . So we've got traps [potential oil-bearing reservoirs—ed.], some of which could lie as little as 1,000 feet in depth. There has been no deliberate attempt to find those traps.

We have new concepts to enhance this exploration. The Landsat is a great, great new exploration tool. I would not be surprised that, with such new interpretative methods, that we can one day find *directly* the area that should be explored. But today, Landsat data is used in conjunction with other geology and geophysics.

Now, also, geochemistry has come back. Thirty years ago, geochemistry was something people looked at with some emotions, pro and con. Today, vilification of geochemistry has receded to the point that geochemistry has become acceptable. . . . Paleogeographic studies, the old relic studies of where the seas were and were not, [we] put all that together with new concepts of geology, geophysics, geochemistry and Landsat.

And you even have new electrical methods, surface electrical methods like the flying magnetometer, in airplanes, and things of this nature. We've got more going for exploration ideas than we ever had before, and a lot of them are brand new. So it's like we've been born again in starting off exploring.

EIR: What, in your estimation, are the most promising areas over the next decade for discovery of new giant basins [larger than 500 million barrels—ed.]?

Halbouty: I think there will be more giant fields found all over the world, there's no question about it. I just completed a study published by the AAPG. From the decade 1968 to 1978, there were 288 giants found in the world. In 1967, if you had asked any geologist anywhere how many giants would be found in the next ten years, he would never have given that high a figure. So the question comes up: how many giants are going to be found in the decade 1979-1989?

Well, if we found 288 giants all over the world in the past ten years, then there's no reason we can't find maybe as many as 288 more—if not more. Because there are areas of the world that have just not been explored. And every country, and there are even developing countries, with prospects to develop giant fields where we haven't even gone in to see what kind of geology those countries can even give.

The fact is, we just haven't even been *interested* in going into those countries. And, in the United States, I think we'll find many more giants. We'll find them, hopefully, not by accident. We'll find them deliberately. A lot of them can be found in the so-called subtle trap.

Now, no one predicted Prudhoe Bay. But I'm not going to say there are no more Prudhoe Bays in the Arctic. If the government will let us drill on those lands instead of cutting them off and saying you can't even work through it—I don't know what the land is going to

be good for—so, if we've got metals and minerals and oil and gas to be found, instead of spending billions of dollars on foreign sources, why don't we find our own?

EIR: There's considerable discussion about the current so-called boom in domestic drilling activity. How do you assess this?

Halbouty: Well, we have about 3,800 rigs running now, as opposed to a low of about 1,700 to 1,800. . . . Frankly, I think the rig count has more or less plateaued out for a while. And whether or not we will get more rigs depends on whether we have continuation of so-called in-field drilling. A lot of these rigs are running in existing fields instead of going out wildcatting [in unexplored areas—ed.] We're not increasing our reserves by drilling like that. I've argued against that for many years. . . . All you are doing is getting the oil out faster by drilling more wells. And you'd be surprised. Eighty-odd percent of our rigs are operating on things of that kind, and very few real honest-to-goodness wildcats.

Now, what I'm advocating is that we get away from doing this in-field drilling and get out there and let's search for these prospects that I as a geologist, and other geologists, know are out there to be found. That's the only way we can increase our reserves.

EIR: What is needed to ensure more wildcat exploration is undertaken?

Halbouty: I was so pleased when President Reagan decontrolled oil since I had advocated it so strongly. We are seeing a movement now of some rigs into wildcat areas. . . . The Windfall Profits Tax [of 1980—ed.], in my opinion, is a disaster. I think it ought to be restructured, or completely eliminated: If I had my choice, I'd take the latter. The reason is that it would give more money to go out and do exploration.

Four and a half years ago, I had some five year leases, and I drilled a well 10,000 feet. And we kept the leases. It was a dry hole. The well cost me \$118,000. Now I have done some geophysics and I found that the geophysics we did before was a little off. . . . Now we're getting ready to drill another well before the lease is expired. My General Superintendent came in and gave me an AFE [authority for expenditure—ed.] on it and I almost fell out of my chair! \$680,000 for the same size well, 10,000 feet deep, in the same area, through the same formation!

Carter made so many mistakes. He probably went through a hundred bills on energy, and every one did nothing but deliberately impede the progress of exploration. . . . All he did was hold back energy, as if you were going to save it for some time in the future. You can't do that. This is what we said in our task force report [Energy Task Force Report, November 5, 1980—ed.]

EIR: Thank you for your thoughts, Mr. Halbouty.