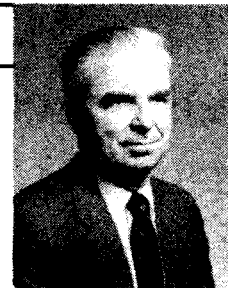


Interview: Charles Mankin



'We have dismantled the U.S. oil exploration industry'

Mr. Mankin is the director of the Oklahoma Geological Survey, and professor of geology at the University of Oklahoma. He was interviewed by Steve Parsons on Sept. 5.

EIR: Even if the price of oil goes to \$100 per barrel, U.S. oil producers would have a difficult time gearing up production because of shortages of all kinds of things, including personnel, parts, and equipment, as well as industries to produce the equipment. Would you agree?

Mankin: I think that price increases alone are not sufficient to guarantee that we're going to see an increase in exploration and development activity for crude oil and natural gas. We have over a period of time, from the mid-'80s to the present, effectively dismantled the exploration industry in this country. The number of available rigs has declined substantially. There are a lot of mothballed rigs sitting around in various parts of the country that could be rehabilitated, but you can't do that overnight. A lot of them have been cannibalized for other uses; a lot of them would simply require major maintenance to bring them back into operation.

EIR: What do you mean by "cannibalized"?

Mankin: Well, you pull the cables off and use them for something else, pull other equipment off, like compressors, and sell parts from them. Some of them have been dismantled for special equipment. The end result is that the number of rigs that are capable of drilling holes in the ground is substantially less than during the peak of our drilling activity in the early '80s. No one knows exactly how many less, but based on my professional judgment, I would say we're substantially less than half of what we had at that time, and probably even smaller.

There was, of course, at that time a very heavy emphasis on deep rigs, because in the early '80s, a quirk of legislation called the Natural Gas Policy Act deregulated the price of natural gas below 15,000 feet. This distorted the normal exploration picture by pushing industry to seek the most expensive natural gas that could be found. And the consequence was . . . a disproportionate ratio of deep drilling rigs as opposed to shallow rigs. If you're going to go after crude oil, the primary targets are going to be in . . . the neighborhood of 4-10,000 feet. Big rigs that are capable of going

below 15-20,000 feet are very inefficient, and costly, for that sort of thing. So the shortage is not only in terms of total number of rigs, but in the kind of rigs that might be available, especially if crude oil is the primary target.

Beyond that, of course, toward the downturn, there was a huge quantity of tubular goods that was available, but those have largely disappeared, having been used up not only just in drilling, but in other purposes. As a result, any kind of greatly increased activity today would immediately demonstrate a shortage of tubular goods. The problem is that we don't have the capacity to produce much of those kinds of goods in the United States any more. Most of the industries that were producing tubular goods of various kinds have largely gone out of business, and most of those would have to be imported.

EIR: Could you name a few of the big companies that have gone under?

Mankin: Lone Star, for example, in East Texas, used to be a major producer of oil well pipe, and they had a particularly effective plant for that purpose. That operation is no longer in existence. Some of the mills down in Alabama did some work in that area, but of course, Birmingham is a steel mill ghost town as far as production of steel products is concerned. You can recite that scenario all over the country. So it's not a question of simply taking existing industries and retooling them back to something they were doing before. The industries, for the most part, no longer exist.

EIR: Over what period has this occurred?

Mankin: Some of these industries, like the steel industry, started disappearing before the drilling boom. But of course, some of the steel industries, like the specialty steel industries in this country that were fabricating rigs, etc.—those hung on. Even in Oklahoma, we had quite a lot of rig fabrication activity. But those have all disappeared since the oil price declines at the end of 1985.

Of course, you don't go out and drill wells without a whole lot of support services. And the various service industry functions—the logging capabilities, the capabilities for doing cementing of casings, etc.—they do exist, like Haliburton, but they have been downsized substantially, and you

don't just turn those on overnight. You could probably bring back the service industry over a short period of time, but it would take two to three years before you could bring any significant increase back into the industry, because it requires fabrication of equipment, logging units, and training of crews. Crews have all gone elsewhere, out of the industry, and many of them would be difficult to get back a second time. . . .

I would judge that the biggest deterrent, frankly, in this area might be how difficult it would be to get capital to do some of these things. It is important to remember that during the "feeding frenzy" of the petroleum industry in the late '70s and early '80s, this country was in the economic doldrums, and the only bright spot in economic activity in the United States was the exploration for oil and gas. As a result, there was very little competition for capital. . . . But today, there is much greater competition for capital—including keeping the federal government going—and that would make it much more difficult to really gear up some of these activities.

EIR: What about the effect of punitive taxes levied on oil producers, especially since the 1986 Tax Reform Act?

Mankin: It's pretty clear from looking at the issues, that the tax structure is certainly tilted against any kind of equity in the petroleum industry. On the surface, there seem to be certain tax advantages, but those advantages are capped by Alternative Minimum Tax requirements and so on, so that what appears to be a tax advantage disappears very quickly under an overall tax structure that prevents you from taking advantage of those mechanisms. When you look at the total tax picture, oil producing is not a place where one would jump in enthusiastically with capital, because of the complexity and nature of tax laws that apply. . . .

EIR: A key bottleneck is the skill and technical levels of the personnel involved in oil exploration and production. Do you have any ball-park estimates as to what proportion of the crews or skilled manpower have left the industry?

Mankin: I'd say about two-thirds. Let's start with exploration: The manpower to physically run a seismic crew and so on is not presently available. You could train them in a relatively short period of time. But collecting data is one thing; interpreting the data is another.

Now, the major companies have for the most part trimmed down and have literally emasculated their domestic operations. They have increasingly gone overseas for oil.

Another big factor is the lack of access to land. Most prospective acreage in the United States is on public land, either in the offshore, in such places like the Arctic National Wildlife Refuge, or in other western public lands. Most of those areas have been removed from exploration entry. Just the issue, for example, of wetlands—no net loss of wetlands. No one knows for sure what that term means, but one of the things it does mean, in a practical sense, is that you don't

go drilling new wells in wetlands areas without a level of difficulty that most companies are unwilling to undertake.

EIR: What percentage of potential reserves are in these kinds of land, versus relatively more available land?

Mankin: If you take the undiscovered potential in this country, which lies predominantly in the Outer Continental Shelf and public lands, I would guess about two-thirds to three-quarters. In the lower 48 states, the most attractive areas are offshore California, followed by offshore Florida and parts of the southern East Coast. Beyond that, areas off the Arctic slope and wildlife refuge in Alaska. These are all restricted from entry. It wouldn't matter if the price of oil went to \$100 a barrel.

EIR: What have been the cumulative effects of low oil prices and punitive taxes?

Mankin: Prior to this current price escalation, we've seen a record rate of abandonment of marginal wells in both the United States and Oklahoma in the first six months of this year. We don't have the final figures yet, but my judgment is that we'll see something like 1,600 wells abandoned in the first six months, compared with, say, 2,200 wells all last year. With the higher prices, we'll see a significant decline in abandonments. These marginal wells will continue production, simply because the increase in price has extended their life.

You will not see any significant increase in drilling activity, however, because the uncertainty of price is a sufficient deterrent to a multimillion-dollar investment that will take some time to yield product. If things cool in the Mideast, the price of oil could go down to \$18 a barrel, and investors could be left holding the bag. In the absence of price stability, no one is going to make major investments for new exploration and development activities.

EIR: What are the effects of this on state and local revenues?

Mankin: It's been devastating. The state of Oklahoma, in the four years of the present governor's term, has had to face \$500 million in tax increases just to stand still. The state went from \$10 billion in the gross value of oil and gas production, to \$6 billion in one year, from 1985 to 1986. We dropped \$4 billion. The state gets a gross production tax of 7% of that. So our revenue dropped \$280 million from that one source in one year, and that in a budget of about \$2 billion, not counting federal funds. That's just over 10% from that one revenue source.

There's another side of this: All of the other tax revenue that was generated by the people who lost jobs as a result of this—some 60,000 workers in the oil and gas area lost jobs in about a year—meant a drop in income and sales and other taxes. Add to this the loss in oilfield service activity, and manufacturing, which in this state is heavily linked to the oil business.