

## Energy Insider by William Engdahl

### U.S. has vast oil and gas reserves

*How much oil and gas is yet to be developed worldwide remains one of the hottest political footballs going.*

**B**ritish Petroleum Ltd. has just released a study which claims that world crude oil reserves by January 2001 could be as much as 30 percent less than levels of 1976, assuming production average equal to the 1979 rate of 62.5 million barrels per day. Atlantic Richfield's Robert O. Anderson made a speech recently where he bewailed the "fact" that we have exhausted the large oil and gas fields in the continental United States. Exxon forecasts that domestic production will plummet to 6.1 million barrels per day by 1990 from a current 8.6 million bbd. Lisle Reed, Energy Department oil analyst, adds that augustly inept agency's official imprimatur to the gloom prognosis: "The resource base is shot."

Now, I am not going to hit you with all sorts of nasty "conspiracy theories," but it is a fact that, with escalating economic recession, the U.S. and the world are currently swimming in a glut of oil. What I want to set down here is a dramatically more optimistic projection of remaining U.S. oil and gas reserves. You draw the relevant conclusions.

I had an interesting discussion the other day with H.A. Merklein, Dean of the Graduate School of Management at the University of Dallas. Merklein has just completed a highly valuable study for one of the nation's most outspoken oil and gas producers, Frank Pitts, who is head of the Texas Indepen-

dent Producers and Royalty Owners Association (TIPRO). Merklein's study shows that some "73.3 billion barrels of oil can be developed by 1990 with an all-out drilling effort." He goes on to predict that "by 1988, the equivalent of an additional Prudhoe Bay Field will be added *yearly* to U.S. reserves (emphasis added—WE), for a second-decade reserve discovery of 137 billion barrels of oil-equivalent. Total discoveries, 1980-2000, will be 210 billion barrels of oil-equivalent, or 21 Prudhoe Bay fields." *If* we drill for it.

This is quite a dramatic contrast to the Energy Department and Exxon. Projecting a current demand of 10.2 billion bbl annually, it would permit energy self-sufficiency until at least the turn of the century.

The interesting aspect of Dean Merklein's analysis is that if you use his projected 20 percent per annum increase in new drilling footage, reserves will actually appear to *decline* until 1984. At that point, the effects of three to four years of all-out drilling will begin to be felt in major new discoveries.

Merklein's study takes as its point of departure the fact that reserves increase with the number of feet drilled. He also qualifies this with the fact that it is not until about three years after initial discovery of a reserve that its full size will be known. Hence the lag in

apparent reserves until 1984. To do the job, he calculates that our annual drilling rate must increase to a peak of 989 million feet per year, about four times what it is now.

Frank Pitts makes the point that nationally, "We have explored only 2 percent of our potential areas for oil and natural gas." Pitts, who also heads the Pitts Energy Group of Dallas, emphasizes the implications of this: "98 percent of the onshore and offshore areas of potential production lie waiting to be drilled and developed."

Pitts points out that, rather than encourage this vast development of hydrocarbon reserves, such moves as the recent \$227.3 billion excise tax on domestic production, euphemistically referred to as the Windfall Profits Tax of 1980, will actually inhibit development of these resources. First, much of the oil yet to be discovered (Pitts estimates that 66 percent of all the oil discovered to date in this country is still in the ground) must come from deeper drilling. This means far greater drilling costs, which double for every additional 2,000 feet drilled.

Now, independent oil producers, the 10,000 or so entrepreneurs whose economic existence is tied to further energy production, historically reinvest some 105 percent of revenues—5 percent *over* well-head revenues—in further exploration. So, at just the moment when every dollar of scarce capital needs to be reinvested, Uncle Sam decides to grab several hundreds of billions.

This is one reason why vocal independents such as Pitts tell me that our present energy policy "is energy suicide." But I said I wouldn't talk here about any "conspiracy." For now, I'll let *you* look into that aspect of the problem.