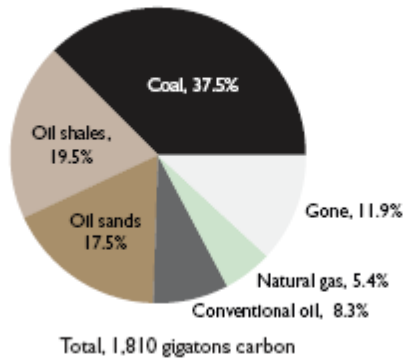


ESTIMATES OF CARBON IN FOSSIL FUEL RESERVES



Approximate estimates for remaining and already consumed stocks of fossil fuels. The fuels differ how they are extracted. Conventional oil and natural gas are obtained by drilling, which is cheap and relatively clean. Coal is obtained by either surface or deep mining. Surface mining is relatively cheap, but highly destructive and polluting.

Oil sands are sand deposits that contain bitumen, a thick form of petroleum. Oil shales are sedimentary rocks with kerogen, a solid hydrocarbon, in the pores. Both are mostly extracted by surface mining, followed by heating to extract the hydrocarbons and convert them to oil. They are expensive to extract, and only a portion of the reserves are in use at present. As with the surface mining of coal, the mining operations tend to be large, destructive, and polluting.

The estimate of the fossil fuels already consumed is from IPCC, *Climate Change 2007: The Physical Science Basis*, pp. 516. The estimates of reserves are from Wikipedia, and are consistent with other on-line sources. All estimates of reserves are uncertain and many are politicized. The figures given above are in common use, but may not be right.