



Xinjiang Geological Resources: *Fossil Fuels & Minerals*

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Oil & Natural Gas

Oil Production by Country

(2004, millions of barrels per day)

Saudi Arabia (OPEC) - 10.37

Russia - 9.27

United States - 8.69

Iran (OPEC) - 4.09

Mexico - 3.83

China - 3.62

Norway - 3.18

Canada - 3.14

Venezuela (OPEC) - 2.86

United Arab Emirates (OPEC) - 2.76

Kuwait (OPEC) - 2.51

Nigeria (OPEC) - 2.51

United Kingdom - 2.08

Iraq (OPEC) - 2.03

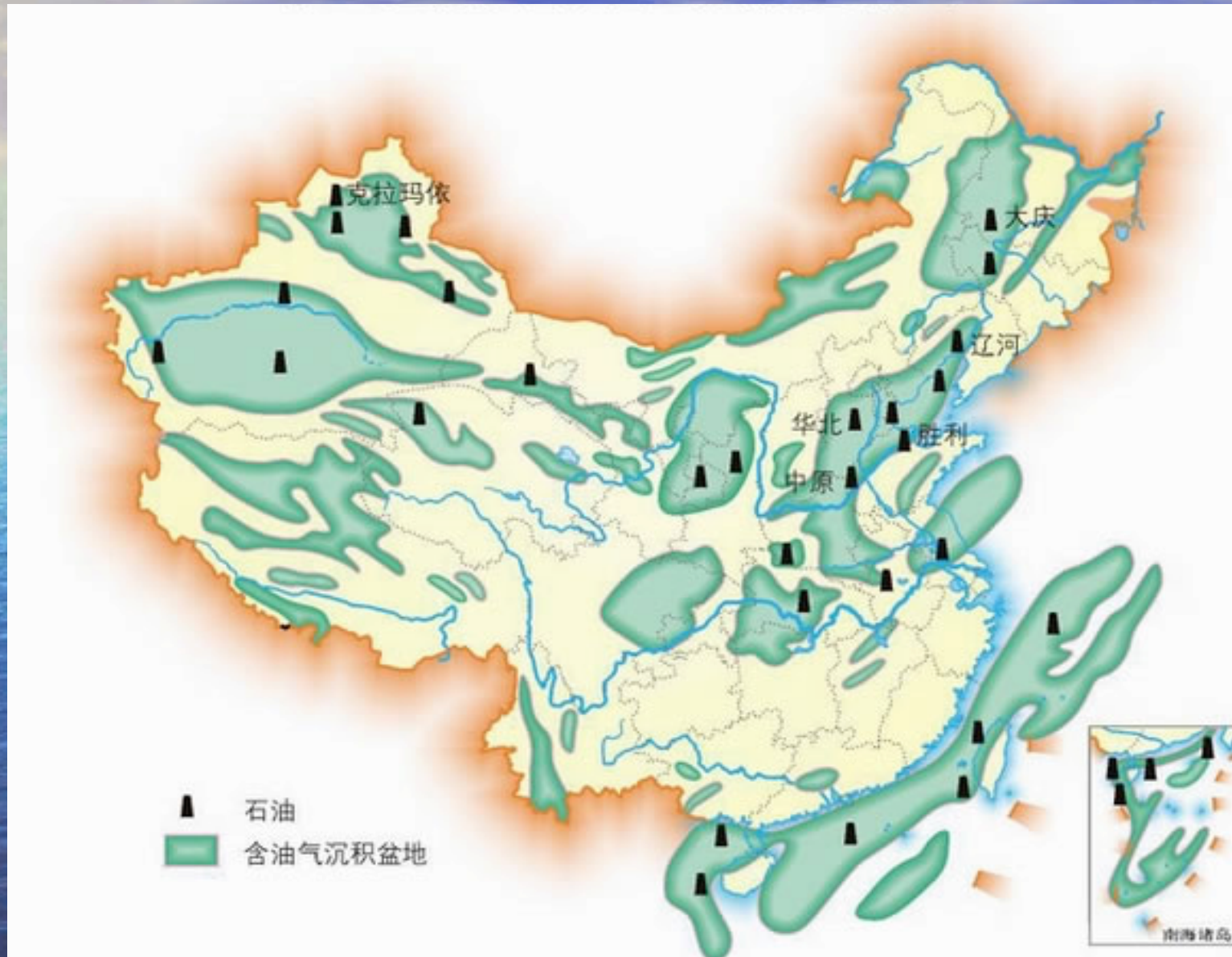
Source: [Energy Statistics from the U.S. Government Energy Information Administration](#)

Oil reserves by country

(10⁹ barrels)

Country/Region	Lowest	Highest
North America total	40.9	214.8
Canada	4.7	178.8
United States	21.3	29.3
Mexico	12.9	14.8
Europe total	95.4	139.2
Russia	60	72.3
Middle East total	708.3	733.9
Iran	125.8	130.8
Iraq	115	115
Saudi Arabia	261.9	262.7
Africa total	100.8	112.4
Asia and Oceania total	36.2	41.1
China	15.4	18.3
Australia	1.5	4
India	4.9	5.6
World total	1082	1277

Major Oil Fields and Oil-Gas-Containing Basins in China



The 3 Major Oil-gas basins in Xinjiang

- Junggar basin

- 130,900 sq.km; 19 oil fields and many oil-bearing geological structures;
- Proved reserves: 8.95 billion tons, gas 3700 billion c.m
- Production in 2002: oil > 10 million tons, gas 2.5 billion c.m
- Major oil fields: Karamay (4th), Dushanzi, Lulian, Qigu...
- Production began in 1940, at Dushanzi, by Soviet



The 3 Major Oil-gas basins in Xinjiang



• Tarim basin

- 560,000 sq.km; 9 oil fields and 34 oil-bearing geological structures;
- Proved reserves: oil 3.78 billion tons
- Production in 1995: oil 5 million tons, gas 2.5 billion c.m
- Major oil fields: Tahe (8th)
- Production began in 1988

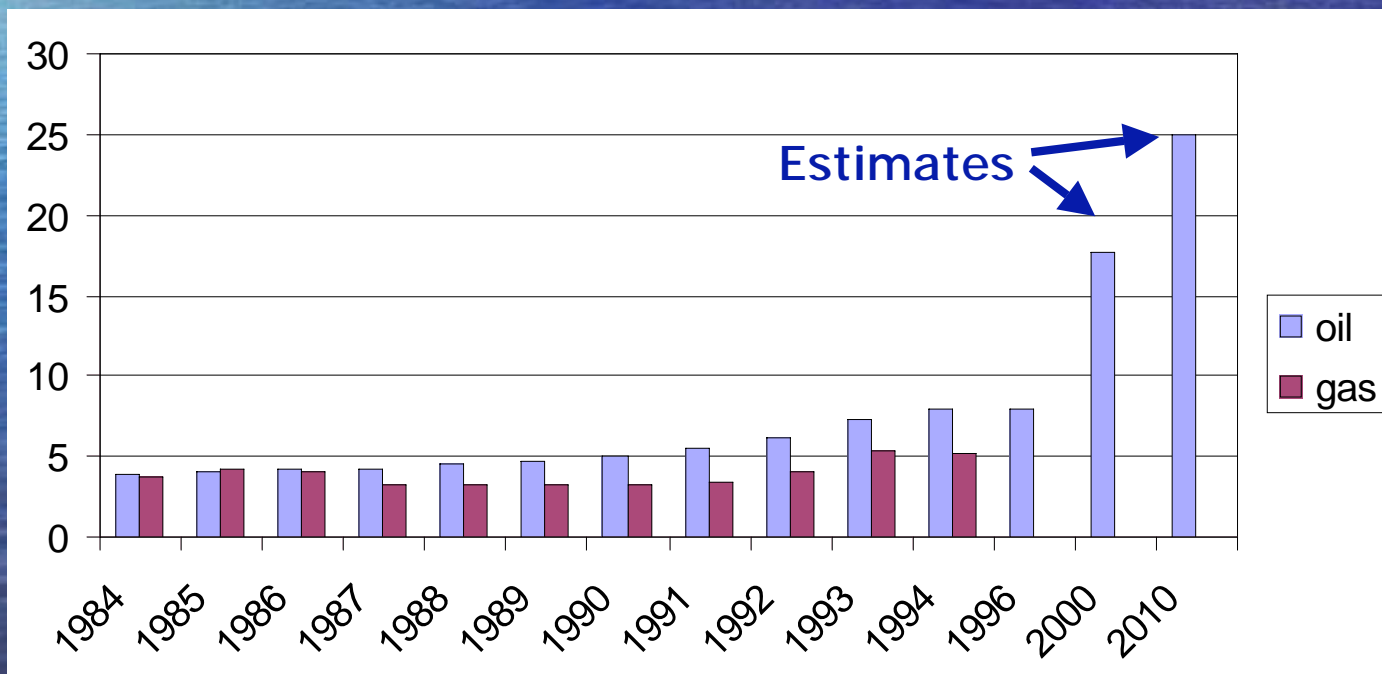
Major Oil-gas basins in Xinjiang



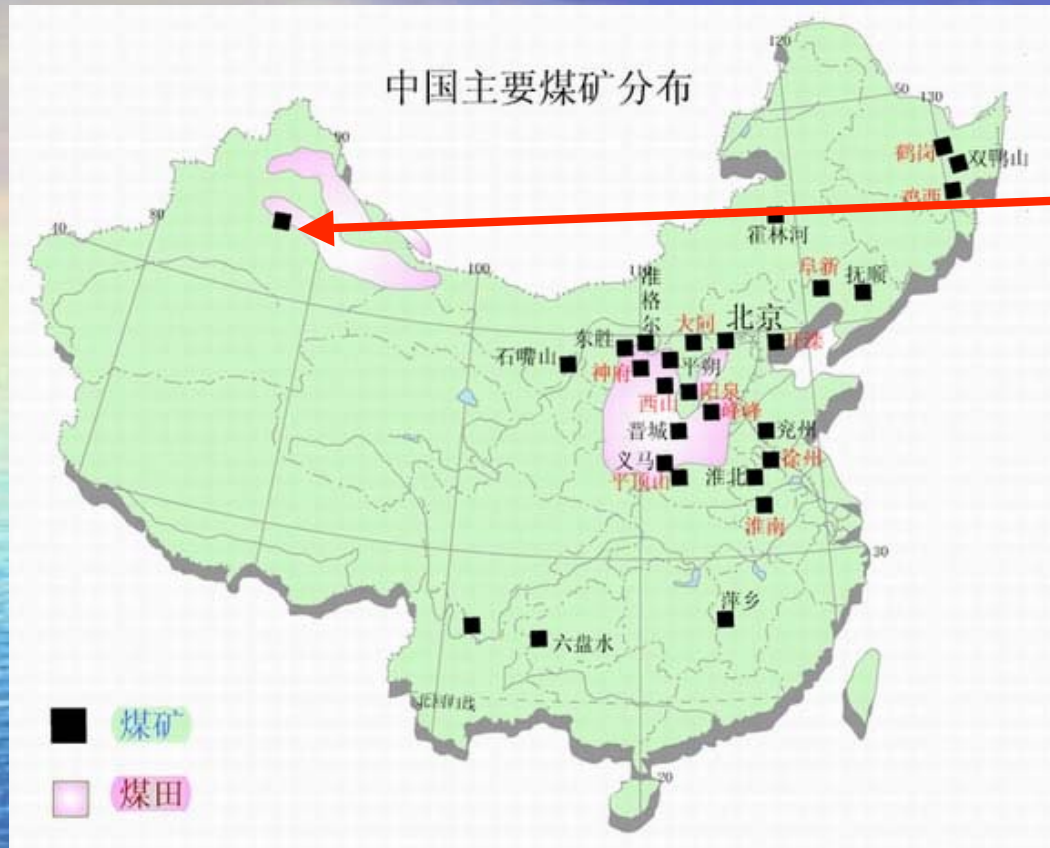
- Turpan-hami basin
- 53,500 sq.km; 14 oil fields and 6 oil-bearing geological structures;
- Proved reserves: oil 208 million tons, gas 73.1 billion c.m
- Production in 1996: oil 2.2 million tons
- Major oil fields: Tuha
- Exploration began in Feb. 1991
- From 1999, use water extracted from crude oil for irrigation.

Xinjiang Compared to the whole China

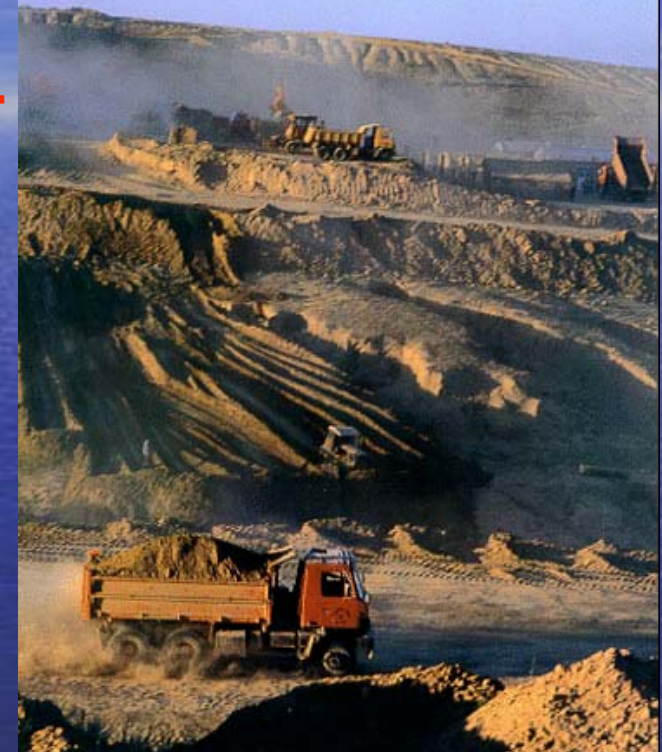
- China's 4th largest oil and gas producer
- Proved reserves: crude oil ~28%, gas ~33% of the national reserves.
- Production in 2005: 24 million tons oil (2nd), 10.7 billion c.m gas (3rd)
- Proportion (%) of Xinjiang oil & gas production in China:



Coal



The Junggar Coal Mine



- Xinjiang
- Proved reserve: 34.6 billion tons, 5th in China;
- Estimated reserve: 2190 billion tons, ~40% and 1st of China
- Current production: 30 million tons from ~100 mines; Major mine: Junggar
- Major coal formation time: Middle Jurassic

Other minerals

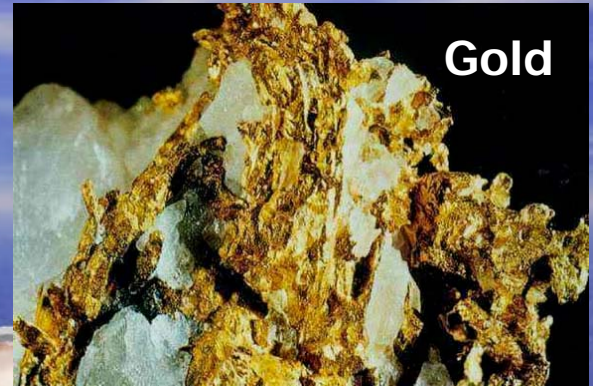
(Ranked by proved reserves in China)

- 1st: Be, muscovite, potassium salts, ceramic clay, feldspar, vermiculite
- 2nd: Al, elemental S,
- 3rd: Ni
- 4th: Magnesite, asbestos
- 5th : Cs, quartz for glass

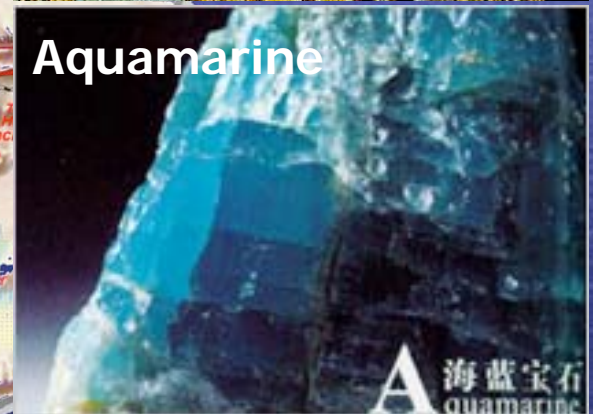
Some famous gem mines

Somewhere in the
Hotan's white jade
mountains:

ember



Gold



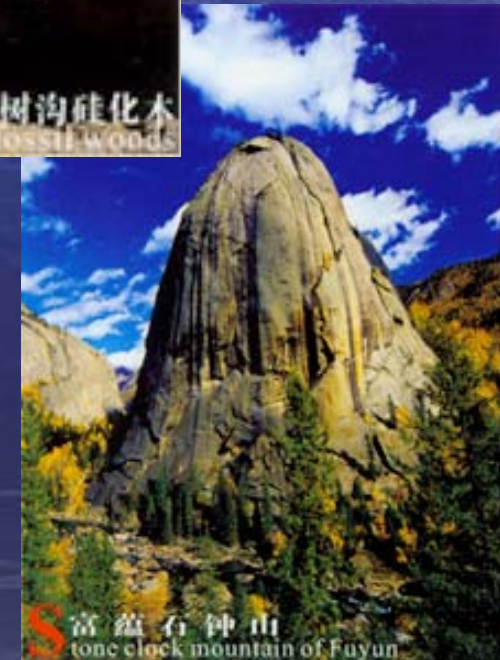
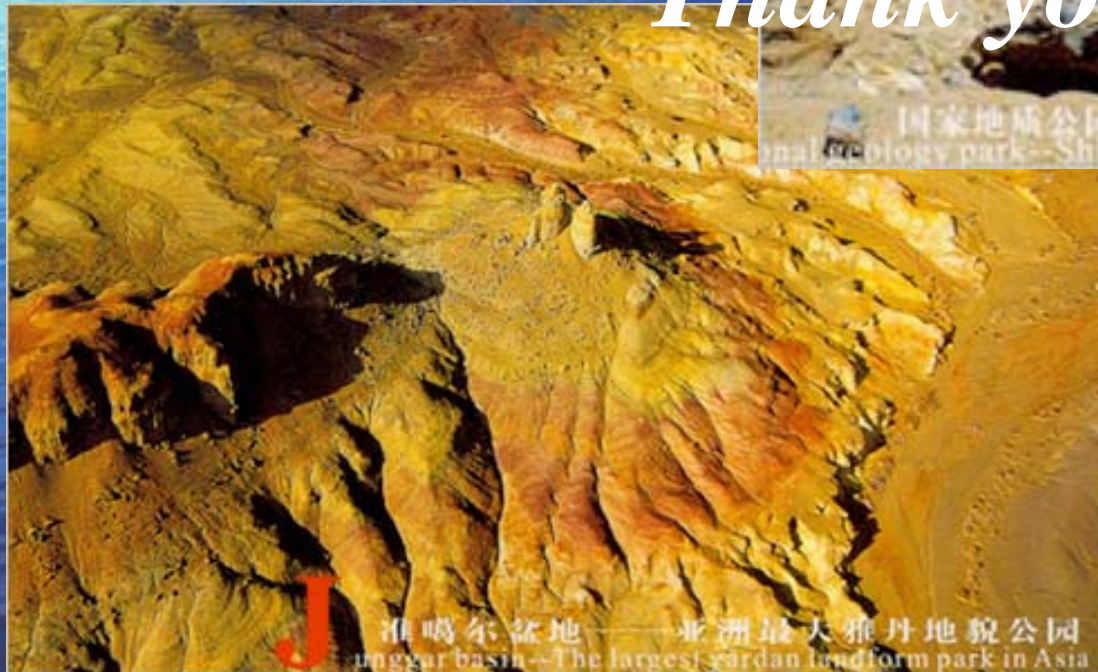
Aquamarine

Altay's gold,
gemstone and
muscovite mining

Suiye: hometown of China's most famous
poet, Li Bai (A.D. 701-762, Tang dynasty)

Geological parks

(From Xinjiang Geological Museum)



Thank you