Unconventional petroleum exploitation I: historical and spatial context

Conventional exploitation:
vertical well in porous and permeable rock, where buoyancy has induced natural localization of petroleum, which flows to well: the economic bonanza that fueled the 20th-century economy.

Unconventional exploitation:
horizontal well in hydraulically fractured impermeable rock, where technologically challenging horizontal drilling and hydraulic fracturing tap enough rock volume to yield expensive petroleum for the 21st-century economy.

A much greater volume of rock is exploited by Well 4 than by Wells 2 and 3, allowing Well 4 to be economically viable if petroleum prices are sufficiently high to support the horizontal drilling and fracking that are required.