

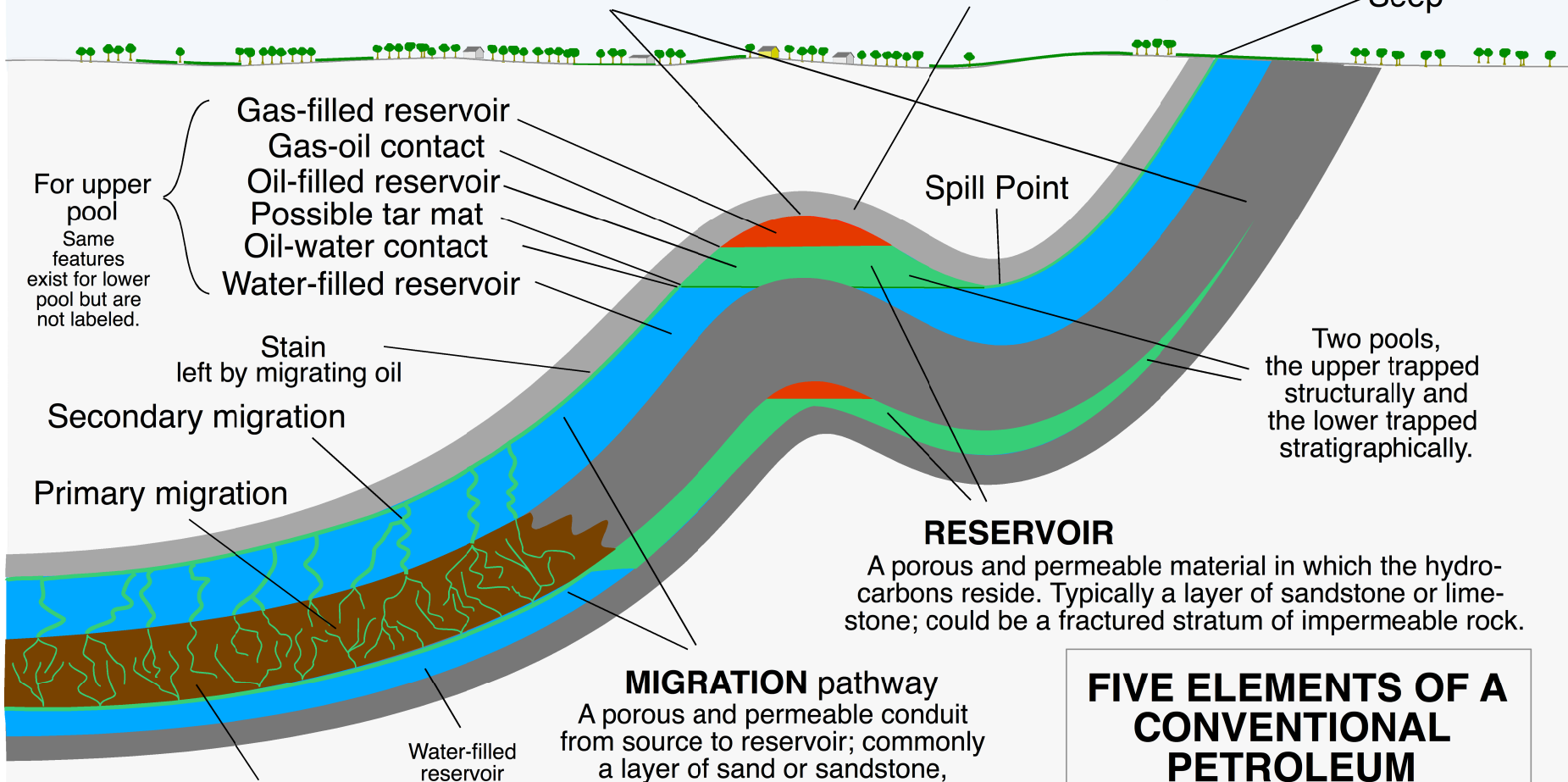
TRAP

A concave-downwards geometric arrangement of seal(s) and/or of impermeable lateral equivalents of the reservoir rock; commonly an anticline or a stratigraphic pinchout. Must exist in three dimensions.

SEAL

(a.k.a. "Cap rock")
Typically an impermeable ductile stratum, commonly shale or evaporites, precluding further upward migration

Seep



For upper pool
Same features exist for lower pool but are not labeled.

- Gas-filled reservoir
- Gas-oil contact
- Oil-filled reservoir
- Possible tar mat
- Oil-water contact
- Water-filled reservoir

Stain left by migrating oil

Secondary migration

Primary migration

Water-filled reservoir

Spill Point

Two pools, the upper trapped structurally and the lower trapped stratigraphically.

RESERVOIR

A porous and permeable material in which the hydrocarbons reside. Typically a layer of sandstone or limestone; could be a fractured stratum of impermeable rock.

MIGRATION pathway

A porous and permeable conduit from source to reservoir; commonly a layer of sand or sandstone, or a fault or fracture system.

SOURCE

A deposit rich in organic matter, which typically consists of the remains of phytoplankton; typically a fine-grained marine or lacustrine sediment (e.g. an organic-rich shale). It must have been buried to a depth at which it was subjected to considerable temperature for considerable time.

FIVE ELEMENTS OF A CONVENTIONAL PETROLEUM ACCUMULATION

and some associated features in an absurdly simple example