RSL are dark, narrow flows that emerge from steep, rocky exposures, and incrementally grow, fade on a seasonal basis.

- Their strong temperature dependence and morphology suggests that liquid water occurs on or near the surface of Mars today.
- Widespread RSL sites are detected among diverse geologic landforms across Coprates and Melas Chasma.
- RSL are shown to be associated with and possibly cause minor topographic changes.
- Water budget estimates suggest a significant amount of near-surface water might be present.
- RSL are best monitored in images from the High Resolution Imaging Science Experiment (HiRISE) camera onboard NASA's Mars Reconnaissance Orbiter (MRO).