

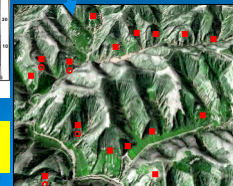
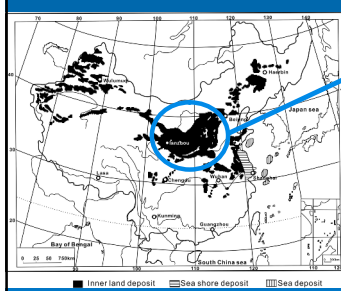


A loess landslide triggered by annual water leaking in winter

Zhang Changliang

Chang'an University, Xi'an, China

Loess is widely distributed in China



Landslide is the major geological disaster in loess region

Water is the major triggering factor of the loess landslide



Huangci landslide in Gansu Province triggered by irrigation



Shigou landslide in Shaanxi Province triggered by freeze-thaw



Baqiao landslide in Shaanxi Province triggered by rainfall



Yanlian landslide in Shaanxi Province triggered by water leaking

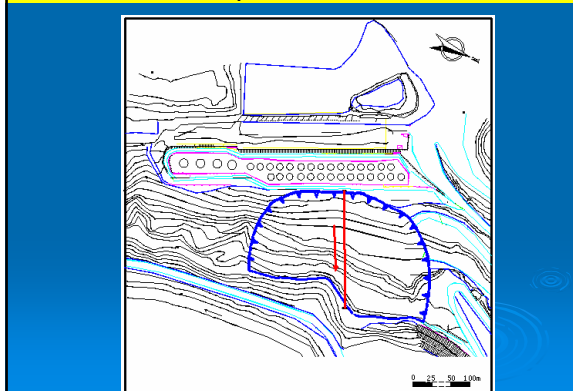
Yanlian landslide triggered by water leaking

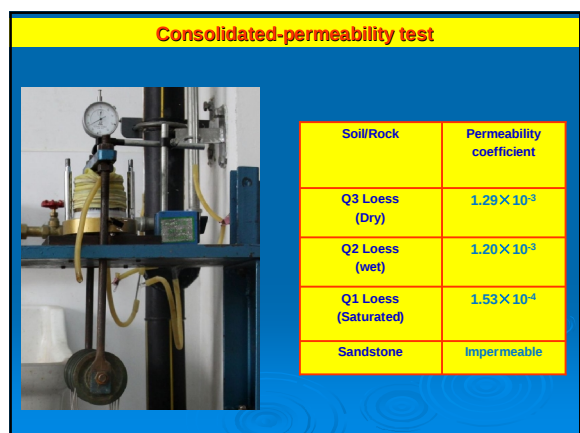
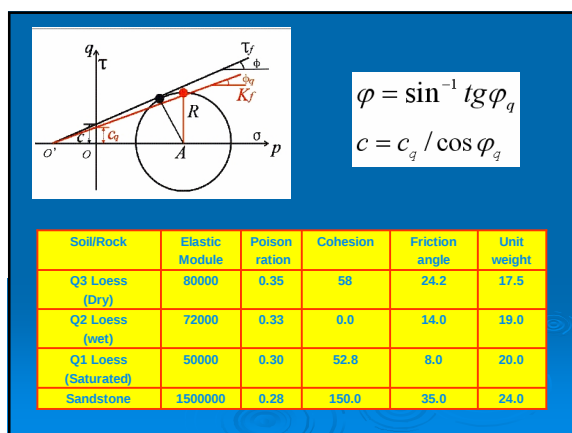
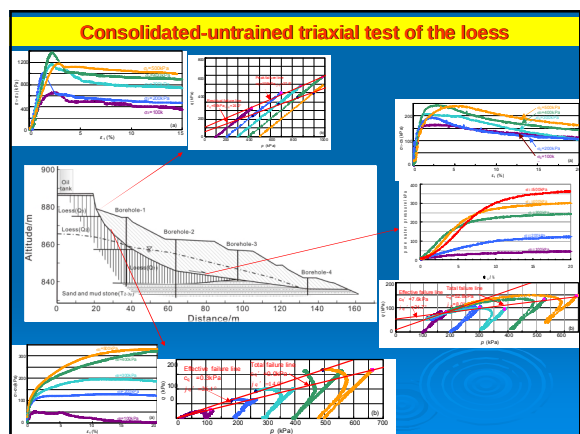
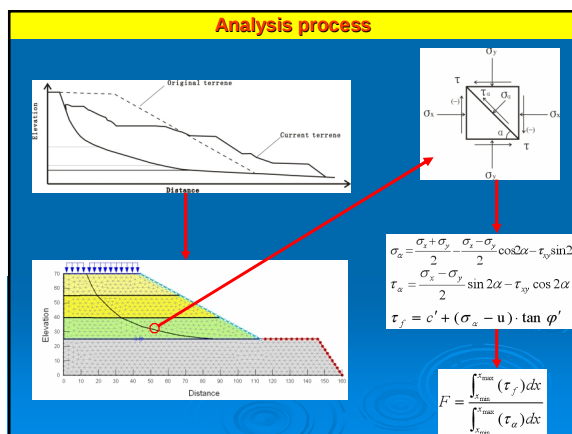
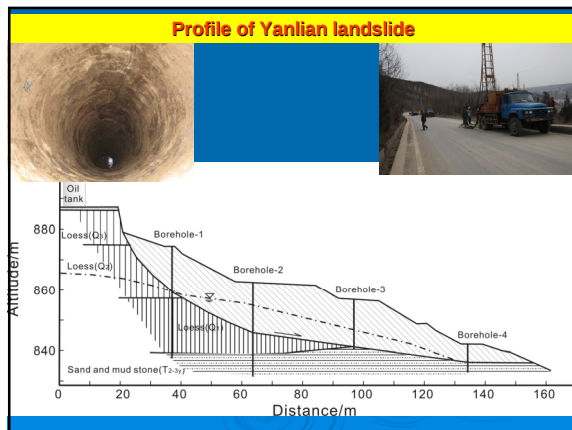


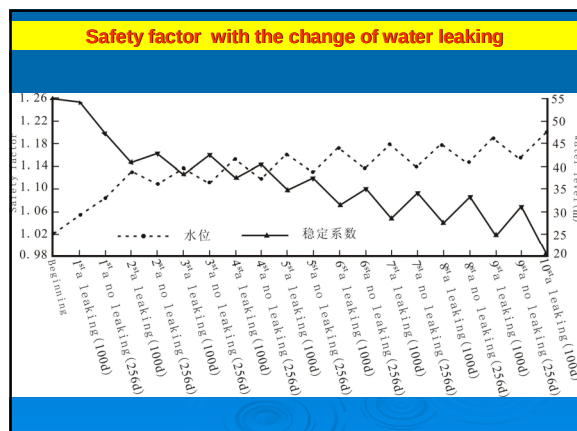
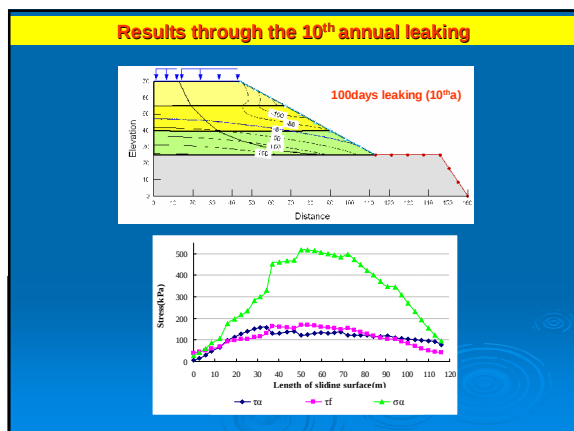
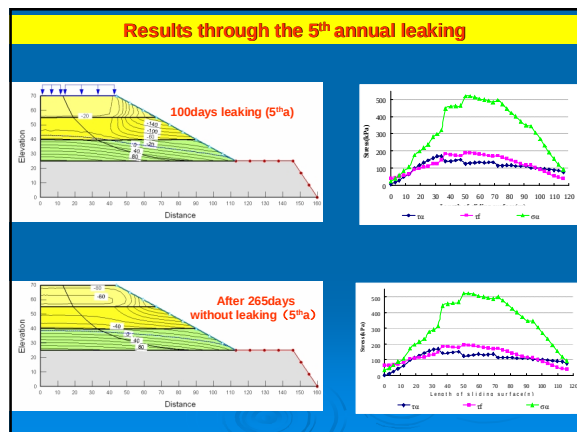
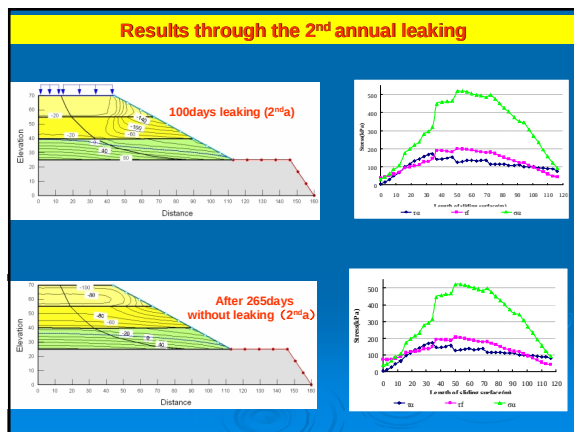
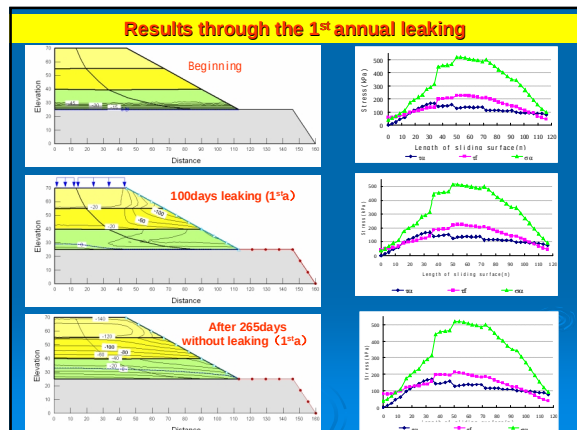
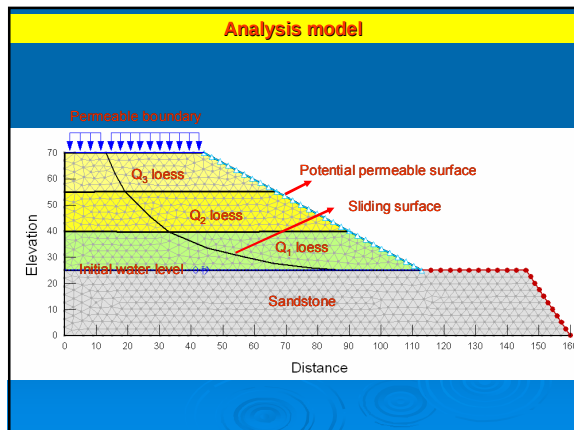
Failure character of Yanlian landslide



Relief map of Yanlian landslide









Conclusions
Ø Long term annual penetration of the surface water condensed by the evapour is the main cause triggering the Yanlian landslide.
Ø Keeping the surface water from penetration in the ground and draining the ground water out are available in the landslide mitigation.



Thank you for your attention