

Invoque[®] at a glance



- Invoque[®] is a **unique** mineral-based dewatering solutions for sediment dewatering.
- Combines adsorption properties of minerals and charge-destabilisation and flocculation properties of conventional technologies.
- Invoque[®] process can be described by the following steps:

- **Adsorption and Destabilization:**

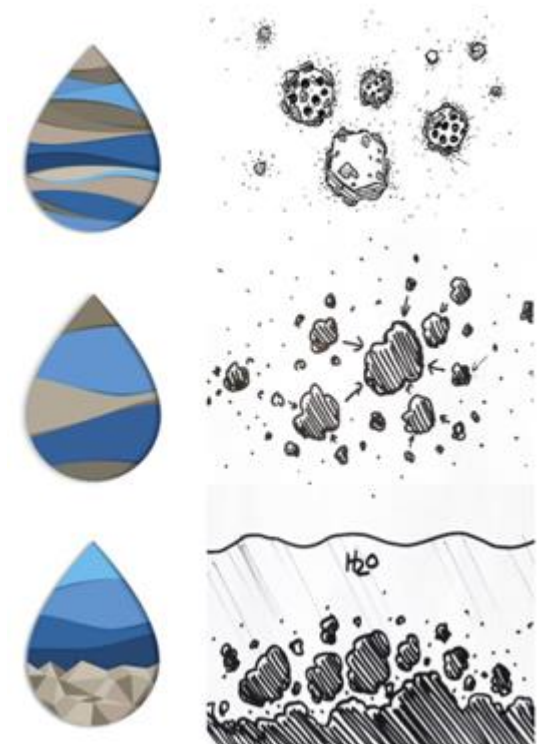
- Conditioners are injected to adsorb fines, suspended and ionic contaminants.
- Conditioner destabilize the sediment.

- **Floc generation:**

- Destabilized particle containing adsorbed substances generate a floc.

- **L-S separation and settling.**

- Larger flocs separate and the L-S phase is separated generating a high quality supernatant and a highly dewatered solid phase



Mineral based sustainable dewatering solution



- Large scale experiment in METHA Plant – Hamburg Port Authority.
- Acrylamide – free dewatering concept based on Invoque[®] solution.

➤ Benefits in the produced material dry cake:

- Higher dry solid content: **15 – 20%**
- Increase on shearing resistance: **20%**
- Improved permeability coefficient: **< 5·10⁻¹⁰ m/s**
- **Beneficial use.**

➤ Benefits in MCFP operation:

- Higher throughput: **25%**
- Lower cleaning cycles on filter cloth.
- Increase availability of the plant.
- Lower staffing requirements at the plant.

