Soil and Silt Treatment

The concept is based on the treatment of mine tailings and uses a leach pile, with suitable water collection to strip the contamination into the water phase. From here the water is treated through a Equinox static water treatment system to remove the contamination.

The benefits of the system are;

- Simple, no large capital investments
- Flexible, by adjusting the chemistry it is possible to treat most soils that cannot be treated using bio-remediation
- Can be used to treat small amounts of soil
- Can be used in combination with bio-remediation to give the lowest cost solution for soil treatment.

Oxidation of Organics

Bio-remediation is effective in the range 500-8,000 mg/kg outside this range chemical oxidation can be used to reduce the final level in the soil to almost zero or to bulk treat the level of oil so that bio-remediation can be used efficiently.

In addition there are many organic compounds that can be treated that bio-remediation cannot handle such as PAH, BTEX,DCE and TCE. These compounds are fully oxidised to carbon dioxide and water.

Other compounds such as PVC and PCB can be de-chlorinated with the addition of reduction chemistry

Leaching of Heavy Metals and TBT

Most heavy metals can be removed from the soil using selective chemicals. Once in the water phase they are passed through an Equinox system where the heavy metals are stripped from the water before recycling.

The system has been successfully used to treat the following;

Copper, Chrome, Arsenic, TBT, Zinc, Nickel and Lead

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