



Hydrocarbon Treatment

newterra treatment solutions for contaminated groundwater and wastewater

With over 25 years of history manufacturing petroleum hydrocarbon treatment systems, **newterra** can implement a wide range of products to provide customized treatment trains.

Oil Water Separators

newterra oil water separators apply the principals of stokes law for removal of low and high density free oil droplets. Our separator efficiency is enhanced by the use of a coalescing media to allow the finer oil products to collect, conglomerate and float out more readily as larger droplets.

Dissolved Air Floatation

For difficult to treat applications, **newterra** will design and implement chemical assisted Dissolved Air Floatation (DAF) systems to remove floating, sinking and emulsified free phase liquids along with settleable solids and precipitating metals. These compounds, when combined together, are not easily removed with conventional oil water separators and clarifiers and can pose operational issues if not effectively removed prior to downstream media vessels.

Air Strippers

newterra will integrate QED low profile air strippers into hydrocarbon treatment systems when targeting removal of volatile compounds with high henrys law coefficients. This approach is typically applied when treating BTEX compounds or Chlorinated hydrocarbons and enables the compounds to be stripped out of the water into an air stream. The main advantage gained from air stripping is a cost advantage of treating the compounds in an air stream rather than a water stream. In some areas of North America regulators allow easily degradable compounds to be discharged to the environment without vapor treatment. When vapor treatment is required vapor phase activated carbon is **newterra's** most common tool for removing these volatile organic compounds from the air stream. While liquid phase carbon may remove compounds at a range of 2% by weight, the vapour phase carbon can remove these same compounds at a range of 20% by weight which can drastically reduce carbon consumption on remediation projects.

Organo Clay Media

newterra applies consumable organo clay media for removing the larger less soluble hydrocarbon compounds. Although this style of media is not as effective for removal of soluble compounds typically found in gasoline, it is proven to remove a greater amount by weight of the larger less soluble compounds typically found in diesel fuels compared to activated carbon. Activated carbon is still typically applied downstream of the organo clay media targeting the lighter end compounds. By removing the larger diesel range organic compounds with the organo clay, the smaller sites found in the activated carbon are left open for removal of the smaller gasoline range organics.

Activated Carbon Sacrificial Media

newterra offers a wide range of coconut shell and coal based activated carbon medias to target specific compounds and maximize media performance in custom designed hydrocarbon treatment plants. We can offer interchangeable lead, lag and parallel filter configurations with manual and automated valve trees depending on the project needs.

Media Vessels

newterra manufactures a wide range of media vessels for use in hydrocarbon treatment systems. This includes small disposable plastic and steel vessels, high pressure FRP vessels, customized carbon steel vessels designed to allow for media replacement while installed in mobile trainers and ISO container buildings, and larger carbon steel vessels to maximize carbon volumes. **newterra** selects the media vessels on projects to achieve the required, bed velocities, media contact time and media operating life between change outs to optimize the performance of your hydrocarbon treatment system.

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clean water. modular solutions. *simple.*