

The logo for MB BIO, with "MB" in large blue and green letters and "BIO" in white letters to the right.A wide-angle photograph of an industrial remediation site. In the foreground, there is a large, dark, cylindrical structure, possibly a bioreactor, surrounded by various pieces of equipment and vehicles. The background shows a flat, open landscape under a cloudy sky.

Remediating hydrocarbon-contaminated sites is an ongoing challenge. MB Bio is proven to reduce up to 99% crude oil hydrocarbons within 30 days.

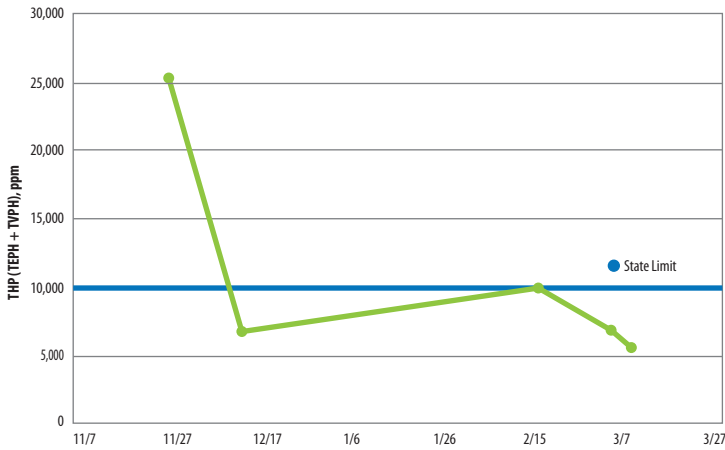
#### WHAT IS MB BIO?

MB Bio is a dry-to-the-touch engineered substrate specifically formulated with patented Micro Bioreactor (MBR) particles loaded with mixed microbial cultures especially selected for oil remediation. Every pound of product provides about 700,000 square feet of area loaded with billions of beneficial microbes. Drylet's MBR particles provide bacteria with an ideal environment to reproduce at significantly accelerated rates, oxidizing long-chain hydrocarbons and ringed hydrocarbons, leaving just carbon dioxide and water.

- EPA National Contingency Plan (NCP) listed
- Great for spill kit
- Can be applied to dry cuttings to avoid offsite treatment

#### ADVANTAGES OVER LIQUID TREATMENTS

- Eliminates drill-cuttings pits
- Dry LIVE bioreactor structure
- >100x higher microbial counts over liquid bioremediation products
- Requires no premixing
- Adheres to oil and solids in water
- Treated materials are in remediation immediately
- Will not leach from soil
- Ease of transportation in dry form



### TPH in drill cuttings drops 72% in 14 days

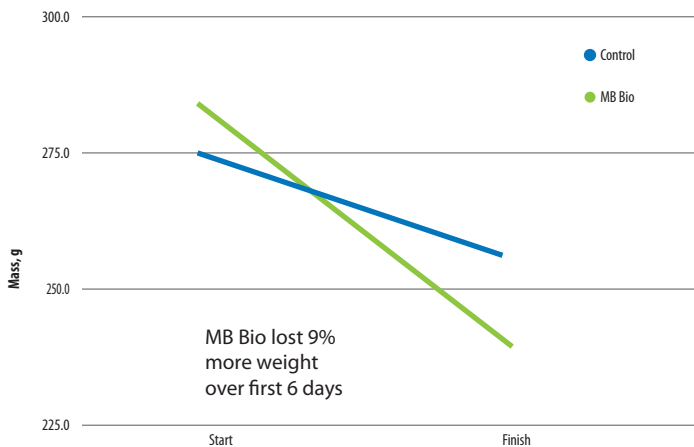
North Dakota mandates that TPH (Total Petroleum Hydrocarbons) levels in oilfield drill cuttings be below 10,000 ppm before they can be pit disposed. A local oil and gas driller reached out to Drylet for help: TPH levels in cuttings they wanted to dispose of were more than 2.5 times above the state limit.

Unlike expensive thermal systems, MB Bio was simply blended into the cuttings with an automated mixing unit. TPH levels dropped 72% in just two weeks, below state-mandated levels. After three months, TPH dropped even further to 5,685 ppm, 78% below baseline.

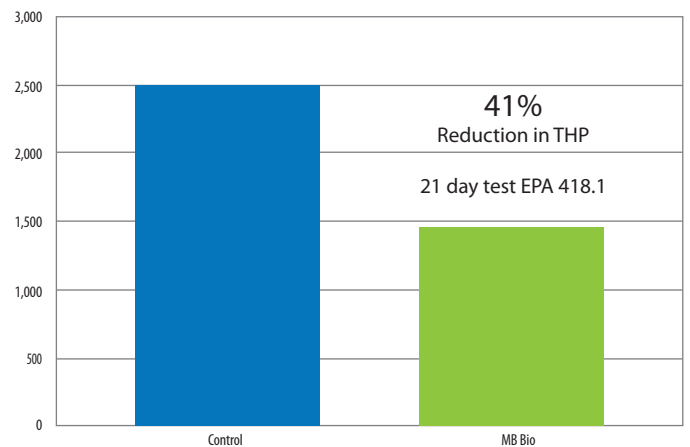
### 41% TPH reduction in 21-day lab test

Composed of water, sands, clay, leftover bitumen, and some lighter hydrocarbons, tailing ponds represent a significant environmental challenge. Effective removal of excess hydrocarbons is an important component of a total tailings ponds solution.

In this test, samples of extraction tailings were placed in two identical sample containers. Less than 1 gram of MB Bio was added to just one container (equivalent to 2 kg/m<sup>3</sup> of material). Both samples were mixed thoroughly and left uncapped at room temperature. After six days, the samples were weighed. After 21 days, they were tested for Total Petroleum Hydrocarbon (TPH) under the EPA 418.1 guideline. Results are shown below.



**Figure 2.** Extraction tailing sample treated with MB Bio lost 9% more weight mass than the control sample in six days.



**Figure 2.** TPH level in extraction tailing sample treated with MB Bio dropped 41% below that of control sample in 21 days.