

# Microbial Next Generation Sequencing

Microbial sequencing methods are a group of techniques that identify microbes based on their genetic code. Sequencing methods are used to provide an overall view of the microbial community. These techniques provide insight into the diversity and possible types of metabolic processes that are occurring in the system under study. Microbial next generation sequencing may be useful in bioremediation, biofouling, microbial induced corrosion, biofuel production and biopharmaceutical production.

**Microbial next generation sequencing is used to provide an overall view of the microbial community.**

An advantage of using sequencing analysis is depth of coverage. At a community level, there is no other microbial test that can provide the amount of information available from sequencing.

Microbial next generation sequencing is especially helpful when working in an unknown or uncharacterized system. In such cases, the depth of analysis offered by this technique can provide a base of data from which to make decisions.

Sequencing can be performed with many sample types including water, soil, air and surface swipes. The data generated is used to understand what microbes are present and how they are coupled to the environmental conditions.

Pace Energy provides data analysis and custom reports for microbial next generation sequencing data!

## Questions To Answer

- Who are the dominant microbes in the system?
- How diverse is the microbial community?
- What are the metabolic capabilities?
- Are bacteria at this site capable of degrading the contaminant?
- How did the microbial community respond to the chosen treatment?
- Did biostimulation enhance the growth of contaminant degrading bacteria?
- What is the material clogging the system?
- Are there bacteria present in this system that cause corrosion?

