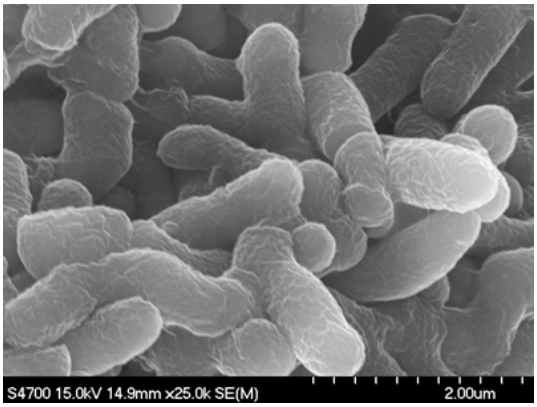
Enhanced Anaerobic Bioremediation Feasibility Test

Enhanced Anaerobic Bioremediation is an effective method for degradation of various types of chlorinated contaminants (and other contaminants, such as certain pesticides and nitroaromatics), and for reduction and immobilisation of heavy metals (e.g., hexavalent chromium, zinc). It is based on addition of an organic substrate (electron donor) to enhance growth of bacteria that results in establishing highly reducing conditions. Under such conditions, anaerobic dechlorinating bacteria can perform reductive dechlorination of chlorinated organic compounds, while heavy metals can be reduced and precipitated, either directly (by bacterial metabolism) or indirectly (via reaction with their metabolites).

DEKONTA offers a wide range of laboratory testing services to evaluate the effectiveness of the Enhanced Anaerobic Bioremediation technology, including a proposal of an appropriate organic substrate and its dosing to optimize the remediation system for in-situ application.

Different types of organic substrates can be tested:

- lactate;
- whey;
- molasses;
- vegetable oil;
- commercially available products.



DEKONTA performs batch tests under anaerobic conditions, to simulate reductive dechlorination or bioreduction, and to evaluate the requirements for *in situ* technology design:

- Appropriate organic substrate;
- Applicability of the thermally enhanced anaerobic bioremediation;
- Complex chemical-physical monitoring of the whole process;
- Molecular analyses of dechlorinating bacteria.

Lab test duration: Batch test usually takes 6-9 weeks

Price of lab test: Available on request

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