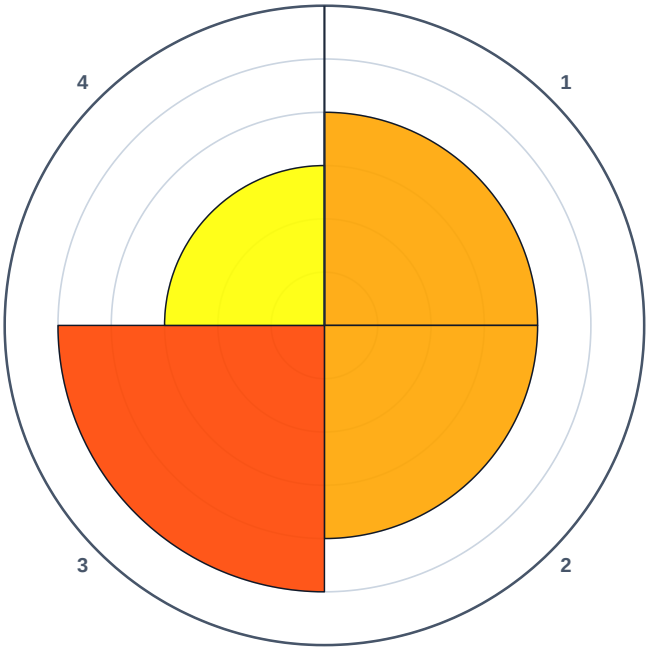
Ecotoxicology Analysis

After Remediation

Locality:	Ferrara, Italy, ER-site
Method:	Enhanced anaerobic in situ biodegradation (PZSEC 162)
Bioremediation method:	After Bioremediation
Sample type:	water
Collection date:	2025-08-07



T6

ORGANISMS

1. *A. fischeri*
2. *Daphnids*
3. *Algae*
4. *Lettuce aquatic*

CATEGORIES

- **A** Non-toxic
- **B** Low toxicity
- **C** Medium toxicity
- **D** High toxicity
- **E** Very high toxicity
- **F** Extreme toxicity

Category Distribution (% of organism readings)

C: 25% **D: 50%** **E: 25%**

Resulting category: **E** Very high toxicity

Test Organisms by Type

Consumers: *Daphnids*

Producers: *Algae*, *Lettuce aquatic*

Destruent: *A. fischeri*

Most sensitive organism: Algae

Critical ecotoxicological response recommended

Samples fall into category E. At 10% sample concentration inhibition is 51–100%, or EC50 is 1–10%. A severe toxic effect is present.

- It is recommended to change the remediation technology/procedure, new sampling, new tests and find the main contaminant.

Ecotoxicity Assessment Criteria

CATEGORY	DESCRIPTION	CRITERIA (ACTIVE RULES)
A	Non-toxic	Undiluted sample: inhibition / stimulation -19.99% – 19.99%
B	Low toxicity	Undiluted sample: stimulation 20% – 50%, or Undiluted sample: inhibition 20% – 50%
C	Medium toxicity	Undiluted sample: stimulation 51% – 90%, or Undiluted sample: inhibition 51% – 90%
D	High toxicity	At 10% sample concentration: inhibition / stimulation -50.99% – 50.99%, or EC50 10% – 50%
E	Very high toxicity	At 10% sample concentration: inhibition 51% – 100%, or EC50 1% – 10%
F	Extreme toxicity	At 1% sample concentration: inhibition 10.01% – 100%, or EC50 0% – 0.99%

Notes: A sample's category is the worst (most toxic) grade reached by any single test organism. Determination of EC50 takes precedence over the inhibition value. In a luminescence bacterial test, an undiluted sample corresponds to a sample concentration of 500 mL/L.

Chemical Risk Assessment

After Remediation

Locality:	Ferrara, Italy, ER-site
Method:	Enhanced anaerobic in situ biodegradation (PZSEC 162)
Bioremediation method:	After Bioremediation
Sample type:	water
Collection date:	2025-08-07

No chemistry data recorded for this phase.