

Dear Madam or Sir

We hope this email finds you well, healthy, and fully charged with energy after the pleasant Easter holidays. Today we send you our next Newsletter containing the April updates. This month, we presented our environmental solutions to the forum of French and German companies, organized by UmweltCluster Bayern, it was a pleasure to be part of this multinational event.

From our R&D department we are happy to provide you with a new update regarding customer projects.

Successful feasibility study completed with an Italian environmental company.

The Problem:

The feasibility study was with an Italian environmental engineering company that provides a wide range of decontamination services and project design. One of the issues they are facing is that their own processes for groundwater decontamination are slow, not efficient enough and leaving a high concentration of metal leftovers in water at the end of the process. The target of the project was the treatment of **contaminated groundwater** in the company sites in Italy. The main contaminants in this site are hydrocarbons, aromatic, poly aromatic and chlorinated materials and solvents.



The Objective

Therefore, the intention of our potential customer to rapid, simple and cost-effectively decontaminate the **groundwater** from organic materials to meet Italian threshold values regulation for each group of contaminants.

The Solution:

We have implemented a series of laboratory treating methodologies for several liters of contaminated groundwater thereby demonstrating that through a simple process our SOA technology could be efficiently applied.

Pilot Results

No:	Contamination	Contamination Level Before Treatment (ppm mg/kg)	Contamination Level After Treatment (ppm mg/kg)	Conversion [%]	Treatment Time [h]
1	Toluene	5.1	<5	>90	1
2	m,p-Xylene	2.6	<5	>90	1
3	Benzene	3.9	<0.5	>90	1

4	1,1-Dichloroethene	0.057	<1	>90	1
5	Tetrachloroethylene	0.69	<1	>90	1
6	Benzo (a) pyrene	0.0062	<0.1	>90	1
7	C ₆ -C ₄₀	1,100	3.9	99	1
8	Mn	1,800	30	98	1
9	Toluene	38	<5	>90	1
10	m,p-Xylene	28	<5	>90	1
11	Benzene	8.7	<0.5	>90	1
12	1,1-Dichloroethene	0.050	<1	>90	1
13	Tetrachloroethylene	0.69	<1	>90	1
14	Benzo (a) pyrene	0.0027	<0.1	>90	1
15	C ₆ -C ₄₀	270	8.7	97	1
16	Mn	2,900	49	99	1

Maybe you face similar challenges in your business. Then please feel free to contact us.

Sincerely,

Your Alpha Cleantec Team

About Alpha Cleantec AG

We believe that our eco-system requires looking after so we have a world worth living in to pass to our next generations. Decontamination of soil and water from hazardous contaminants plays a major role in this regard, in our view. This is why we established Alpha Cleantec AG as an environmental technology company in 2016 with a vision to provide safe, green, rapid, efficient and cost effective technologies to resolve environmental harms and hazards caused by inadequate human and industrial activities.

Alpha Cleantec AG provides two technologies, AFA and SOA, achieving decontamination ratios of up to 97% for a wide range of contaminants in just hours (such as Hydrocarbons, BTEX, Petroleum leftovers, Aromatics, PAHS, Chlorinated Solvents, PCBs, Dioxins as well as Pesticides and Herbicides) to be applied for soil, wastewater and railway ballast treatment.

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Table of contaminants treatable by our technologies

CONTAMINANTS	IN-SITU		ON SITE	
	SOA	AFA	SOA	AFA
BTEX				
Benzene	*	*	*	*
Toluene	*	*	*	*
Ethylbenzene	*	*	*	*
Xylene	*	*	*	*
PETROLEUM HYDROCARBONS				
Gasoline Range Organics (GRO)	*	*	*	*
Diesel Range Organics (DRO)	*	*	*	*
Oil Range Organics (ORO)	*	*	*	*
AROMATICS				
Chlorobenzene	*	*	*	*
Bromobenzene	*	*	*	*
Dichlorobenzene	*	*	*	*
Nitrobenzene	*	*	*	*
Phenol	*	*	*	*
Styrene	*	*	*	*
Naphthalene	*	*	*	*
Trichlorobenzene	*	*	*	*
Trimethylbenzene	*	*	*	*
PAHS				
Phenathrene	*	*	*	*
Naphthalene	*	*	*	*
Acenaphthylene	*	*	*	*
CHLORINATED SOLVENTS				
Tetrachloroethylene	*	*	*	*
Trichloroethene	*	*	*	*
Dichloroethene	*	*	*	*
Vinyl chloride	*	*	*	*
Tetrachloroethane	*	*	*	*
Trichloroethane	*	*	*	*
Dichloroethane	*	*	*	*
Dibromochloroethane	*	*	*	*
Bromodichloromethane	*	*	*	*
Carbon tetrachloride	*	*	*	*
Chloroethane	*	*	*	*
Chloroform	*	*	*	*
Chloromethane	*	*	*	*
Chlorotoluene	*	*	*	*
Methylene chloride	*	*	*	*
PCBS				
DIOXINS				
PESTICIDES AND HERBICIDES				
Glyphosate	*	*	*	*
Goal	*	*	*	*

We plan to inform you in future whenever we accomplished projects, pilots or case studies. If you do not wish to get our company news, please let us know.

Kind regards

Mit freundlichen Grüßen

Andreas Danner

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