

Alpha Cleantec AG

Newsletter November 2021

Dear Madam or Sir

We hope this email finds you well, healthy. Today we send you our next Newsletter containing the November updates.

This month we participated in several exhibitions dealing with contaminated soil, wastewater, groundwater and sludge. As, **Aquatech 2021, Amsterdam and Envitech 2021, Czech Republic**. We enjoyed the presentations, the relevant discussions and meetings with potential customers.

We have also been active on the **social media** front and have started to post interesting information for our followers on LinkedIn regularly. If you also want to be updated more quickly and learn interesting news about ACT and environmental remediation, make sure to follow us on **LinkedIn**: <https://www.linkedin.com/company/alpha-cleantec-ag/>

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

Project - Treatment of contaminated groundwater in Italy.

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 and not efficient enough. 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

It is therefore the intention of the customer to rapidly, simply 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 our SOA solution as a treatment agent based on deep pressure injection approach.

Results:

Sample No.	Contamination	Pollution degree (ppb µg/L)	After treatment (ppb µg/L)	Reduction of pollution in %
1	Total hydrocarbons	2,900,000	<30	>99%
	Benzene	0.12	<0.1	n/a
	Chloromethane	1.7	<0.05	>98%
	Tetrachloroethylene	5.8	<0.05	99%
	Organohalogenated hydrocarbons	7.5	<0.2	>99%
	benzoperylene	20	<0.003	>99%
	Chrysene	200	<0.003	>99%
	Pyrene	130	<0.01	>99%
	IPA	20	<0.04	>99%
	C ₉ -C ₁₂	130,000	66	>99%
	C ₁₃ -C ₁₈	750,000	520	>99%
	C ₁₉ -C ₃₆	2,000,000	2,400	99%
	Aromatic C ₁₃ -C ₁₈	370	<0.1	>99%
2	Total hydrocarbons	4,200,000	5,400	99%
	Benzene	0.11	<0.1	n/a
	Chloromethane	2.3	<0.05	98%
	Chlorodivinylyl	1.3	<0.05	97%
	Tetrachloroethylene	5.9	<0.05	>99%
	Organohalogenated hydrocarbons	9.5	<0.2	98%
	benzoperylene	2.1	<0.003	>99%
	Chrysene	13	<0.003	>99%
	Pyrene	7	<0.01	99%
	Aromatic C ₁₃ -C ₁₈	22	<0.1	>99%
	C ₉ -C ₁₂	290,000	120	>99%
	C ₁₃ -C ₁₈	1,300,000	1,500	>99%
	C ₁₉ -C ₃₆	2,600,000	3,700	>99%
3	Total hydrocarbons	74,000	300	>99%
	Benzene	0.4	<0.1	>75%
	Chloromethane	1.7	<0.05	>97%
	Tetrachloroethylene	6	<0.05	>99%
	Organohalogenated hydrocarbons	7.6	<0.2	>97%
	benzoperylene	3.2	<0.003	>99%
	Chrysene	25	<0.003	>99%
	Pyrene	16	<0.01	>99%
	IPA	3.2	<0.04	99%
	Aromatic C ₁₃ -C ₁₈	44	<0.1	>99%
	C ₉ -C ₁₂	4,100	62	99%
	C ₁₃ -C ₁₈	22,000	87	>99%
	C ₁₉ -C ₃₆	48,000	74	>99%

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

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.

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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