

Dear Madam or Sir,

We hope this email finds you well and healthy. Today we are sending you our next Newsletter containing the February updates. We proudly announce that we are **one of the winners of the of the "A WAVE of Innovation" challenge** for our solution for wastewater plants. Moreover, this month we participated in the EU Techbridge event, it was an excellent opportunity for networking and meeting with potential customers and partners.

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

### *In-situ soil decontamination project in Israel.*

**The Problem:** The soil treatment project was with an Israeli environmental company that provides a wide range of decontamination services. The project targets were in-situ and rapid decontamination of **TPH in contaminated soil (historical diesel spill)** in a desert area and meeting Israeli regulations.

**The Objective:** Therefore, the customer intends to rapidly, simply, and cost-effectively decontaminate the **soil from TPH** leftovers at a depth of up to 6 meters to meet the Israeli threshold value regulation for the current contamination.

**The Solution:** We have implemented our SOA-AFA solution as a treatment agent based on an in-situ injection approach. As a result, the process was efficient and reached the required levels of decontamination with low quantities of active solution and a short contact time.

#### **Results:**

Contamination	Before Treatment (ppm   mg/L)	After treatment (ppm   mg/kg)	Required level (ppm   mg/kg)	Conversion (%)
TPH	9,610	449	800	96



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

<https://www.linkedin.com/company/alpha-cleantec-ag/>



# Alpha Cleantec AG

## Newsletter February 2023

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### 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.

For Decontamination for a wide range of contaminants, see table of contaminants below, we provide two technologies, AFA and SOA, achieving decontamination ratios of up to 97% 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, groundwater, wastewater and railway ballast treatment.

For wastewater facilities we have developed based on our proprietary technology a process allowing to pretreat sludge before the digester, thereby significantly increasing biogas generation (up to 50%) and decreasing dry sludge disposal at the end of the process (up to 20%).

For Vegetation control we have developed a process based on an environmentally friendly mixture of inorganic salts that generates concentrated (non-Glyphosate) herbicide absorbing water from the plants and drying the plant including the roots (without changing the salinity of the soil).

### Table of contaminants treatable by our technologies

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