

PRESS RELEASE

Valledupar, Cesar, Colombia June 22, 2021

Successful Completion of Environmental Management and Bioremediation Demonstration Pilot Project in the San Alberto River

Seeking to improve the environmental conditions of the San Alberto River, located in the municipality of San Alberto, Cesar, Colombia, the Cesar Regional Government Autonomous Corporation, "Corpocesar", carried out a pilot demonstration project employing bioremediation and environmental management to significantly decontaminate the tributary.

According to Martínez Manjarrez, Director in charge of Corpocesar, "sewage discharge and agro-industrial activities, in addition to agricultural runoff from extended areas have impacted the San Alberto River water quality in a high percentage. The most critical stretch of contamination was detected in the San Alberto municipal sewage oxidation lagoons, where the impact generated at this location affects 80% to 85% of the entire length of the river. With the pilot project, Corpocesar sought to not only recover the quality of river water but also to identify the effectiveness of the technology to be replicated in other tributaries and to improve the conditions of the river habitat ecosystem thereby increasing the supply of goods and services and foment economic growth".

The EBD Tech environmental balance technology is implemented by the "Precious Culture Foundation" (*"Fundación Cultura Preciosa" in Spanish*) which owns the exclusivity in Colombia. It is based on the Higgs-boson discoveries consisting in eliminating all corrosive oxygen that affects the deoxyribonucleic acid (DNA) of microorganisms which are essential in the recovery of the environment. It initially acts by eliminating odors, then organic matter and finally with surfactants (detergent). The technology does not act with solid waste such as towels and plastics.


Given that the main pollutant source is the wastewater treatment plant (WWTP) located in the San Alberto municipality, it was decided to carry out the pilot project to intervene in this very system in order to improve the quality of the San Alberto river.

To measure the efficiency of this model, an initial discharge water physicochemical characterization was carried out on March 18, 2020 following Resolution 0631 of 2015 and 9 months later, this characterization was repeated, with the aim of being able to determine whether or not there was an improvement in the quality of the wastewater.

Among the results obtained before and after the project, the following parameters stand out:

Before the pilot project, the San Alberto municipal wastewater treatment system reduced biochemical oxygen demand (BOD5) by 29%. After the implementation of bioremediation, it reduced it by 48%. Before the pilot project the Total Suspended Solids (TSS) were reduced by 23%. After the project, the TSS reduction amounted to 79%. Regarding the Sedimentable Solids parameter, there was no reduction noted before the pilot project and such solids accumulated around the outlet area of the treatment system. A 95% reduction in Sedimentable Solids was detected with the implementation of bioremediation system. For fecal coliforms and total coliforms, reduction before the project was at 85% and with the implementation of bioremediation, it was reduced by 96%.

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According to Eduardo López, Environmental Sanitation and Spill Control Coordinator, Corpocesar, “considering the laboratory results obtained during the different phases, the system has worked efficiently at a general level, controlling offensive odors and lagoon mirror solids. There was a significant change in the pollutant load in relation to the inlet and outlet of the WWTP, which indicates that the quality of the water discharged into the San Alberto River was improved”.

Said project was presented by Corpocesar before the Collegiate Body of Administration and Decision, OCAD, which made it feasible and approved its financing by and through a direct allocation of resources from of the General System of Royalties, SGR.

How does EBD Tech technology work?

It is based on the discoveries of the Higgs-boson which consists in eliminating all corrosive oxygen that affects the DNA of microorganisms which are essential in the recovery of the environment. It initially acts by eliminating odors, then organic matter and finally with surfactants (detergent). The technology does not act with solid waste such as towels and plastics.

What are the advantages of technology?


- It does not require any type of energy for its operation
- Does not require any type of connection or cable signal
- Does not require infrastructure
- Minimum space occupied by the devices, 60 centimeters
- Does not generate collateral effects (radiogenic, radioactive, effusive, mutagenic)
- Environmentally friendly


Sincerely,

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Link to the original letter in Spanish:

<https://www.corpocesar.gov.co/files/boletin-prensa-031-22-06-2021.pdf>

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