

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN COLOMBIA

April 1st, 2020 to April 30, 2021

New GEOTRACES or GEOTRACES relevant scientific results

- Technical report to environmental authorities about:
 - Parameters as total mercury and dissolved cadmium, copper, iron, nickel, and lead, to understand changes in marine environmental quality during seven weeks of COVID-19 isolation.
 - Parameters as total cadmium, cobalt, chromium, copper, iron, manganese, nickel, lead, vanadium, zinc and total mercury, to explain changes in water quality because a dark spot in a beach of Santa Marta, Colombia.
 - Parameters as total mercury, lead, cadmium, chromium, copper, zinc, iron, manganese, gamma-emitting radioactive isotopes of the ^{238}U chain, topics of interest to support the sustainable development of the offshore hydrocarbon sector.
 - Parameters as lead, cadmium, chromium, copper, nickel, zinc in suspended particulate material, sediments and organisms, in monitoring of environmental conditions and structural and functional changes in plant communities and fisheries resources during the rehabilitation of Ciénaga Grande de Santa Marta, an important coastal lake in the Colombian Caribbean.
- A research article: Vallejo Toro P.P., Ibarra-Gutierrez K.P., Bernal C.A., Espinosa-Díaz L.F. (2021). Accumulation Rates Using the ^{210}Pb Dating Method in a Sediment Core of the Cispatá Bay, a Marine Protected Area in the Southwestern Colombian Caribbean. Geol Earth Mar Sci. 3(2): 1-5. <https://doi.org/10.31038/GEMS.2021322>.

GEOTRACES or GEOTRACES relevant cruises

- Cruise in an off shore exploration block in the Colombian Caribbean where water and sediment samples were taken to measure key parameters such as micronutrients essential to life in the ocean and other related with anthropogenic pollution such as metals, and hydrocarbons.

New projects and/or funding

- Regional Cooperation Project with International Atomic Energy Agency “Strengthening capacities in marine and coastal environments through nuclear and isotopic techniques”.
- National Project with Hydrocarbons National Agency, an environmental technical study in areas of interest in the Colombian Caribbean and Pacific to support the sustainable development of the offshore hydrocarbon sector phase 2021.

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