

The information below is quoted from Diane Salkie, the EPA remedial project manager for the Ciba-Geigy Superfund site, in response to questions asked at the January 17, 2023 webinar hosted by Save Barnegat Bay.

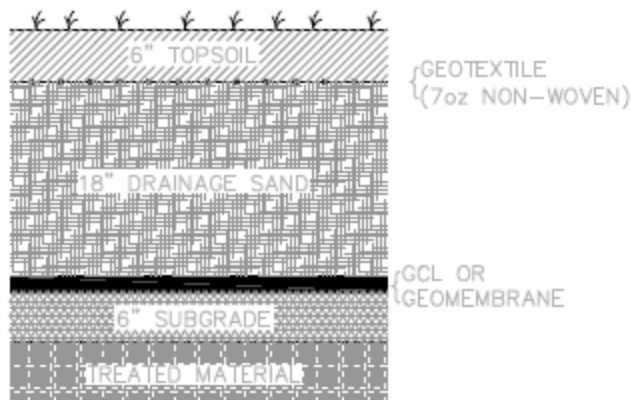
You can access the recording of the webinar here: <https://youtu.be/ZTk7Gu82Ebg>

What happened to the ocean discharge pipe? If you can find any documentation on that, it would be helpful.

The Ciba-Geigy pipeline was shut down and decommissioned in 1991. In 1994 the pipeline section which extended into the Atlantic Ocean was removed, and the section from Bay and Vaughn Avenues and the barrier island was transferred to the Ocean County Utilities Authority to be used as a supplemental sanitary sewer line.

What do the cap layers consist of?

The diagram below is a cross section of the cap. The treated material is 30" below the ground surface and the geomembrane is a 40 mil HDPE. See the pdf attachments from the Remedial Action Report for OU2 for a description of the materials.



(Cap detail not to scale)

What is the size of the plume that has decreased, what %, and what % is remaining?

Yes, the 2020 LTMP differentiates between 50% reduction in the overall plume size and 70% reduction in the plume core size (higher concentration area).

Will the groundwater be cleaned up to C1 before it is discharged back into the Toms River?

In general, the Site does not discharge treated groundwater to the Toms River. The treated groundwater is recharged to the ground on the BASF Site. Routine monitoring confirms that water quality in the Toms River is not impacted by the Site.

Can you add the data reports to the website?

Yes, I am in the process of updating the website.

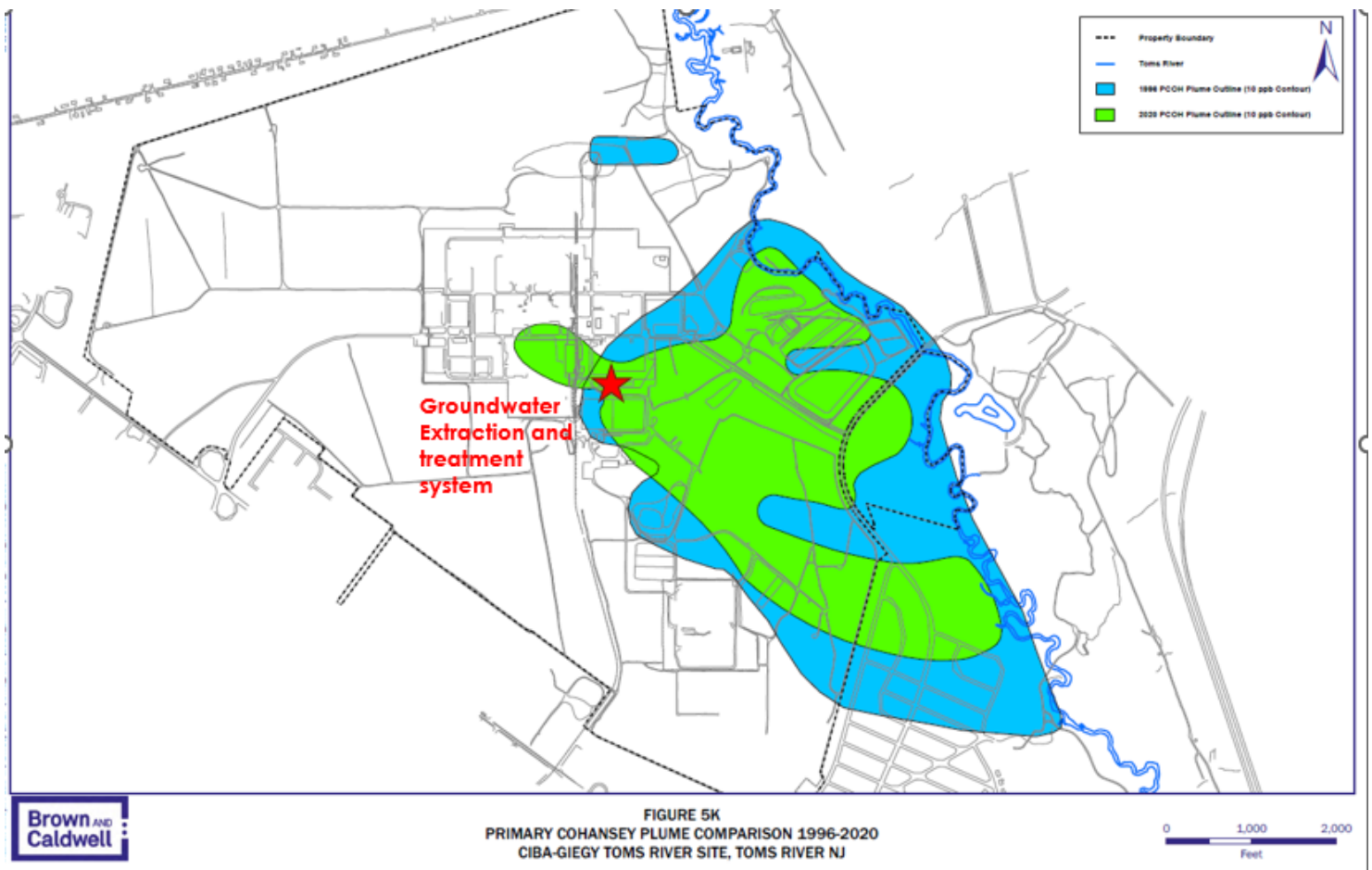
What are the contaminants of concern at the site?

Nine Site-related COCs have been defined from the source delineation: 1,2,3-trichloropropane, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, chlorobenzene, naphthalene, nitrobenzene, 2-chlorotoluene, perchloroethylene, and trichloroethylene.

What are the details of the bioremediation system used to treat the contaminated soil?

Details of the bioremediation can be found in 3.6.4 Overview of *Ex-Situ* Biotreatment Process of the Remedial Action Report OU 2 located on the website.

Figure below with a star that shows the location of the treatment system that draws the groundwater:



Information about the “cap” barrier under the solar panel field:

3.7.8.1 Cap Configuration

A single barrier system (24 inches total thickness) consisting of a geosynthetic barrier, a drainage layer, and vegetative layer was constructed at each of the PWM areas. The cap configuration developed for the project that meets the design criteria consists of the following (from top to bottom):

- 6-inch topsoil layer to support vegetative growth and run-off;
- geotextile filter fabric to provide separation between the topsoil and drainage layer;
- 18-inch sand layer (to provide drainage for rainfall that infiltrates);
- barrier layer to minimize infiltration (40 mil geomembrane) with a maximum permeability of 1×10^{-7} cm/sec.; and
- 6-inch sub-base material (<3/4”) to protect the barrier layer. This consisted of sand from the borrow area.