



South Carolina Department of Health and Environmental Control



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DHEC Surface Water Sampling Event

In response to community concerns that contamination from the Plantation Pipe Line petroleum release had migrated downstream, DHEC coordinated a surface water sampling event with Anderson County and the contractor for Plantation Pipe Line, CH2M. On February 28, 2017, DHEC collected surface water samples to determine if contaminants related to the petroleum release had migrated downstream to Broadway Lake. Representatives from Plantation Pipe Line and Anderson County's Stormwater Management Department also participated in the sampling event. All samples collected by DHEC were split with Anderson County and CH2M. Plantation Pipe Line collected samples from all sampling locations shown on Map 1 as part of its ongoing assessment, monitoring, and cleanup of the site.



Map 1. Plantation Pipe Line

Plantation Pipe Line

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surface water sampling locations



Map 2. DHEC surface water sampling locations

DHEC collected samples from 23 locations (shown on Map 1 and Map 2) near the release site and downstream of the release site, to include Broadway Lake, Brown's Creek, Broadway Creek, Cupboard Creek, East Rock Creek, and Pea Creek. Two sampling locations in Cupboard Creek (SW-5 and SW-6, shown on Map 1) were not sampled, as they were dry. Samples were collected from a tributary of Cupboard Creek further downstream of the site (SW-103, SW-104, and SW-107, shown on Map 2).

DHEC, Anderson County, and CH2M each chose different certified laboratories to analyze the samples. All surface water samples collected by DHEC were analyzed by PACE Analytical for standard contaminants typically found in petroleum releases.

Results from this surface water sampling event detected contaminants in three locations in Brown's Creek: SW-1, SW-2, and SW-12 (shown on Map 1). These locations are included in Plantation Pipe Line's routine sampling as part of the ongoing site assessment and cleanup; the results from this sampling event are consistent with data from prior sampling events. The contaminants found at these locations are expected to decrease over time with the operation of the [biosparging and aeration systems](#). Toluene was also detected in one sample further downstream (SW-104, shown on Map 2). Toluene is found in petroleum, as well as many household items. The level of toluene detected is substantially below any health-based benchmarks.

DHEC's data from this sampling event did not detect petroleum contaminants above risk-based screening levels downstream from the release site to Broadway Lake.

All analysis results of surface water samples collected by DHEC are listed below. For comparison, the first table also lists action levels and risk-based screening levels, as well as regulatory standards that are established to manage and protect the quality of South Carolina's surface water.

- [Summary of Surface Water Sampling Event Results \(analyzed by PACE Analytical\)](#)
- [DHEC Laboratory Data](#)
- [Anderson County Laboratory Data](#)
- [CH2M Laboratory Data](#)

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