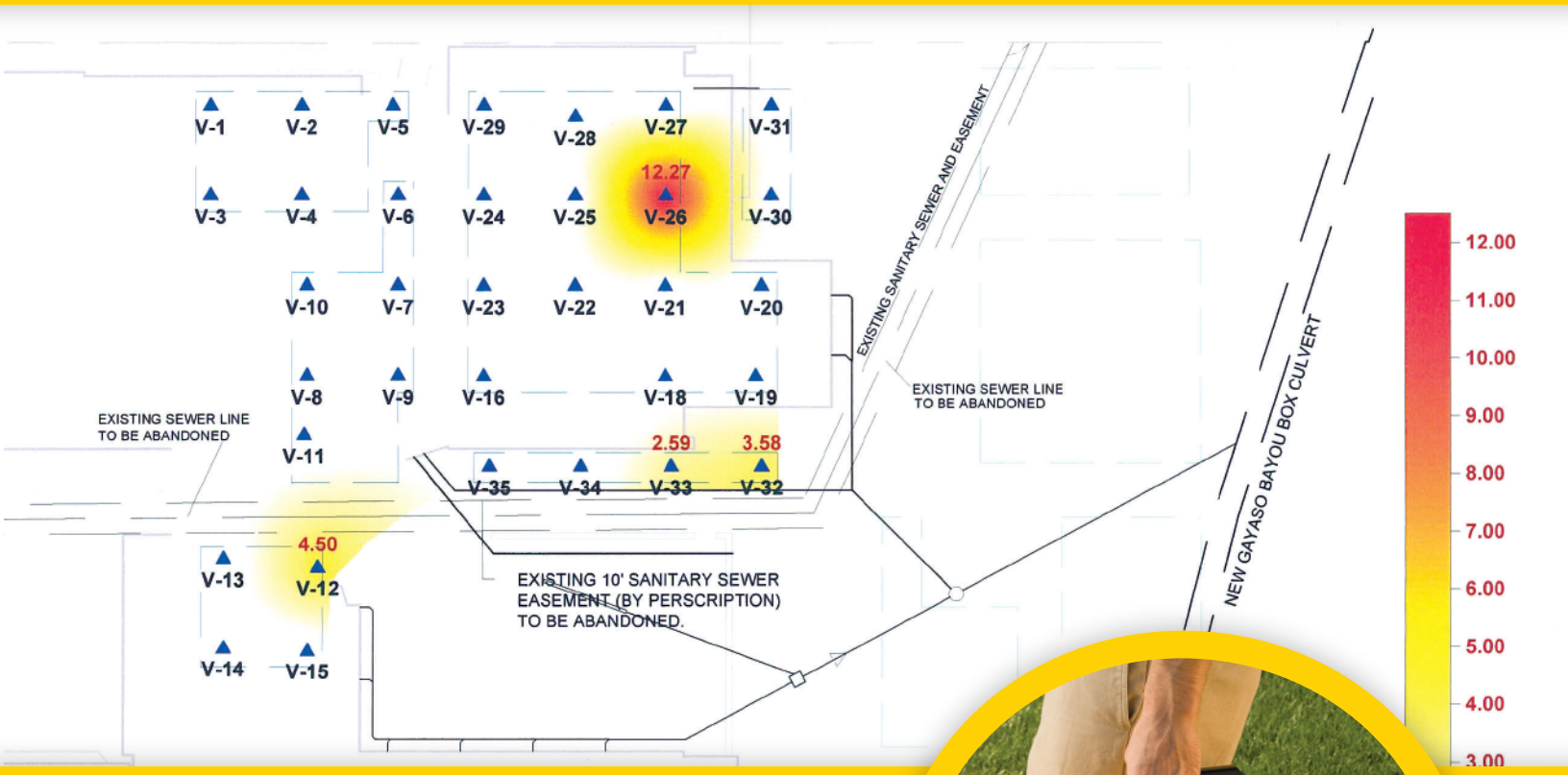
The Leaders in Soil Gas Surveys and Vapor Intrusion Monitoring

BEACON ENVIRONMENTAL
SERVICES, INC.

Vapor Intrusion Pathway Investigation



Beacon Passive Soil-gas System
Vapor Intrusion Pathway Investigation

This site was a former dry cleaner from the 1930s to the 1970s. By the early 1990s all dry cleaning operations had been removed. An asphalt parking lot was left in its place. Soil and groundwater investigations determined tetrachloroethene (PCE) and breakdown products as well as petroleum hydrocarbons were present. From 1999 to 2001 over 1.8 million cubic feet of contaminated soil was excavated and hauled away. Limestone fill was used to geotechnically improve the future building's footprint. A new elementary school building was then constructed on the site.

OBJECTIVE

Seven Summa canisters and 35 BEACON surface flux chamber samples were collected over a five-day period. Seven chemicals of concern (COCs) were investigated: tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,2-dichloroethane, 1,1-dichloroethene, and vinyl chloride.

DESCRIPTION

The BEACON samplers defined the vapor intrusion of tetrachloroethene and 1,1-dichloroethene, while the Summa canisters (EPA Method TO-15) reported all non-detects. The BEACON survey enabled detection of some chemicals at levels below the Summa canisters practical quantitation limits providing a more complete and realistic vapor intrusion exposure pathway evaluation. Based on the defined vapor intrusion and the sensitivity of the receptors on this site, an on-going monitoring program has been implemented, as well as the installation of a remediation system to mitigate any vapor intrusion.

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