

**ARSENIC IMPACTED SOIL REMOVAL & SITE CLOSURE
FORMER RESEARCH FACILITY, DALLAS, TEXAS**

BRIEF DESCRIPTION OF PROJECT:

A commercial property management and property development client retained Wright Environmental Services (Wright) to provide environmental closure services at a former research and development facility for a Fortune 100 oil and gas company. The project Site was located on an approximately 11.6-acre tract of land, with an 18-story office tower, six other outlying buildings and parking, in a primarily urban area, three miles from the Dallas, Texas, Central Business District.



During due diligence work for sale of the facility, an area of shallow soil impacted by arsenic was identified. Wright conducted release delineation activities in accordance with applicable Texas Commission on Environmental Quality (TCEQ) regulations and guidelines. After the additional work Wright was able to limit the response action to a shallow soil excavation, resolving the issue and closing the property in the TCEQ Industrial Solid Waste Program. The impact delineation and soil removal were conducted as part of acquisition and redevelopment of the facility for a new land use.

PROJECT DETAILS AND RESULTS:

After review of the initial soil and groundwater results indicated concentrations greater than residential assessment levels, Wright conducted additional groundwater delineation work to determine if the surface soils release had impacted groundwater. Concentrations of arsenic in groundwater above the drinking water standards were identified at the Site. However, the highest levels were observed in wells on the upgradient property boundary. As such, TCEQ agreed the groundwater impacts were not related to the shallow soil arsenic impacts at the site. It was determined there was an anthropogenic area-wide arsenic groundwater plume, potentially related to former cotton farming in the area of the Site. Arsenic acid was a commonly used defoliant for cotton plants prior to harvest in Texas. This determination limited potential response actions to surface soil media.



After review of the previous soil sampling work, Wright conducted a series of 12 additional borings to finish the vertical and horizontal delineation of the soil impacted area. This data was submitted to TCEQ in a Response Action Completion Report. This report included statistical analysis of each of the previous soil sampling results to determine a site-specific soil clean up standard protective of groundwater and dermal exposure. The report then determined a depth and extent of the excavation to remove impacted soil greater than the derived protective concentration level. Upon concurrence from TCEQ with the proposed cleanup goals and response action, Wright filed a Self-Implementation Notice. Upon TCEQ approval of the notice, Wright excavated the soils. Wright prepared a Response Action Completion Report documenting impacted soils had been removed to the cleanup standard and the Site had been restored

to its previous condition. As previously discussed, TCEQ issued a closure letter dated February 28, 2019, stating no further action was necessary.