

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
MOTIVA FAIRFAX TERMINAL
Offsite System Abandonment
FACT SHEET



Background: An underground petroleum leak from the former Star Enterprise Terminal and now Motiva Enterprises Terminal on Pickett Road was discovered in 1990. The leak had resulted in a petroleum-contaminated groundwater plume that extended 2000 feet from Pickett Road to the Mantua community. Under EPA’s direction, construction of an interim groundwater remediation system to contain and clean up the petroleum-contaminated groundwater began shortly thereafter and became operational in 1991. Subsequently, the system was expanded and modified to its current configuration in 2000 as the final remedy. There are two major components of the remediation system: One located inside the Motiva Enterprises Terminal to the west of Pickett Road referred to as the onsite system. The other located to the east of Pickett Road in the Mantua community referred to as the offsite system

During February 1999, EPA issued a Final Decision on the remedy after consideration of public comments on the remedial alternatives. The selected remedy was to continue operation of an interim pump-and-treat system and the installation of five horizontal infiltration wells on the community side. The horizontal infiltration wells, which began operation in April 2000, provided flushing of the contaminated groundwater to the existing pump-and-treat system to enhance recovery. The remediation goal, as defined in the Final Decision, requires that groundwater be restored to drinking water standards, or that technological limits have been reached. The Final Decision further stipulates that partial or full shut down of the remediation system may only occur provided that such action will not pose unacceptable risks to human health and the environmental.

Status of Remediation: During 2009, after 18 years of clean up resulting in substantial reduction of the contamination, EPA approved Motiva’s request for a “temporary shutdown test” of the offsite system to collect data. The data was analyzed to determine whether a permanent shut down and abandonment of the offsite system was warranted.

The temporary shutdown test required sub-slab soil vapor sampling of 18 homes located above the historical plume boundary, and extensive groundwater sampling. The data collected from the four year test was reviewed by a technical workgroup consisting of representatives from the Virginia Department of Environmental Quality, the City of Fairfax, Fairfax County, the Mantua Community, and U.S. EPA (the Workgroup).

Data Results: Soil vapor data demonstrated that there is no indication that vapor intrusion is posing unacceptable health risks to homes above the historical boundary of the plume. Ongoing groundwater monitoring indicated that natural attenuation continues to restore groundwater quality. Based on the test data and the recommendation by the Workgroup, EPA approved a permanent shutdown and abandonment of the offsite system on August 20, 2013.

Offsite System Removal and Abandonment: The system components will be partially removed and abandoned in place in accordance with permits issued by the Fairfax County Health Department and the Virginia Department of Transportation. The work is expected to begin in September and be completed by the end of 2016. Groundwater monitoring will continue until such time that the USEPA approves cessation and subsequent abandonment of remaining monitoring wells. The abandonment plan covers the offsite system only. The onsite system continues to operate.

Facility Description: The Motive Enterprises Terminal is located at 3800 Pickett Road, Fairfax City, VA 22031 and is identified with EPA ID #VAD093952935. The Motiva Terminal is one of four oil distribution terminals located on Pickett Road, Fairfax City, Virginia. The terminal has nine 1-2 million gallon above-ground tanks that supply petroleum to the region at a rate of one million gallons per day.

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