



U.S. Environmental Protection Agency | Region 9 | Phoenix, AZ | July 2018

Motorola 52nd St. Superfund Site Field Notice – Bio-augmentation Testing

NXP USA, Inc. (formerly a part of Motorola Inc. and Freescale Semiconductor) will be conducting additional field work to implement the bio-augmentation phase of the in-situ (i.e., underground) remediation project that was initiated in late 2017. The pilot project work area is northwest of the former Motorola facility located at 52nd Street and McDowell Road. The work is being conducted as part of NXP’s continuing investigation and clean-up actions at the Motorola 52nd Street Superfund Site. The purpose of the pilot project is to test the applicability of in-situ bioremediation to reduce contaminant levels in groundwater and in soil vapors that have required indoor air mitigation systems to be installed at some houses in the neighborhood. The work is being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program with the oversight of the Arizona Department of Environmental Quality (ADEQ) and the US Environmental Protection Agency (EPA).

Between December 2017 and January 2018, the initial phase of work involved installing new environmental wells to monitor groundwater and to inject liquid phase activated carbon (called PlumeStop®) approximately 70 feet below ground. The PlumeStop® adsorbs the contaminant (known as trichloroethylene or “TCE”) and supports the ability of beneficial microbes (i.e., bacteria), that are introduced in the bio-augmentation phase, to break down the TCE into harmless by-products.



Location of bioremediation pilot project



Typical trailer set-up for well injection

In-Situ Bioremediation Process

Bio-augmentation Testing

In a process known as “bio-augmentation”, beneficial microbes will be injected along with sodium lactate (a fermented form of sugar) to enhance and sustain the below ground microbial system’s ability to break down the TCE over time. The bio-augmentation injections are anticipated to be conducted on July 31st and August 1st 2018. Additional information about in-situ bioremediation can be found through EPA’s Citizen Guide to Bioremediation at <https://clu-in.org/products/citguide/> .

The bio-augmentation phase of work will create traffic restrictions for two days. After the injection, NXP will monitor water levels and collect water quality samples from the groundwater monitoring wells in the area monthly for three months and less frequently thereafter. This monitoring requires minimal time and minor traffic disruptions to the neighborhood. Future injections of lactate will also be required to provide a food source for the microbes; however, these injections will be infrequent and approximately one day each occurrence and may be conducted as part of the routine groundwater monitoring.

We thank you for your patience and understanding during this important part of the groundwater remediation effort and apologize for any inconvenience caused by these activities. Every effort will be made to minimize the impact to the surrounding residents.

Contact Information:

For more information, please contact ADEQ or EPA staff :

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More information is also available at:

<http://www.epa.gov/superfund/motorola52ndst>
<http://azdeq.gov/node/node1916>

For information in Spanish, please call toll-free

Para información en español, por favor llama al número a continuación: 1-800-231-3075