

Public Availability Session

MtBE Groundwater Contaminant

Maize and West Central
Wichita, KS

September 13, 2016

Tyler Road Southern Baptist Church

Scott O'Neal



Kansas Department of Health and Environment

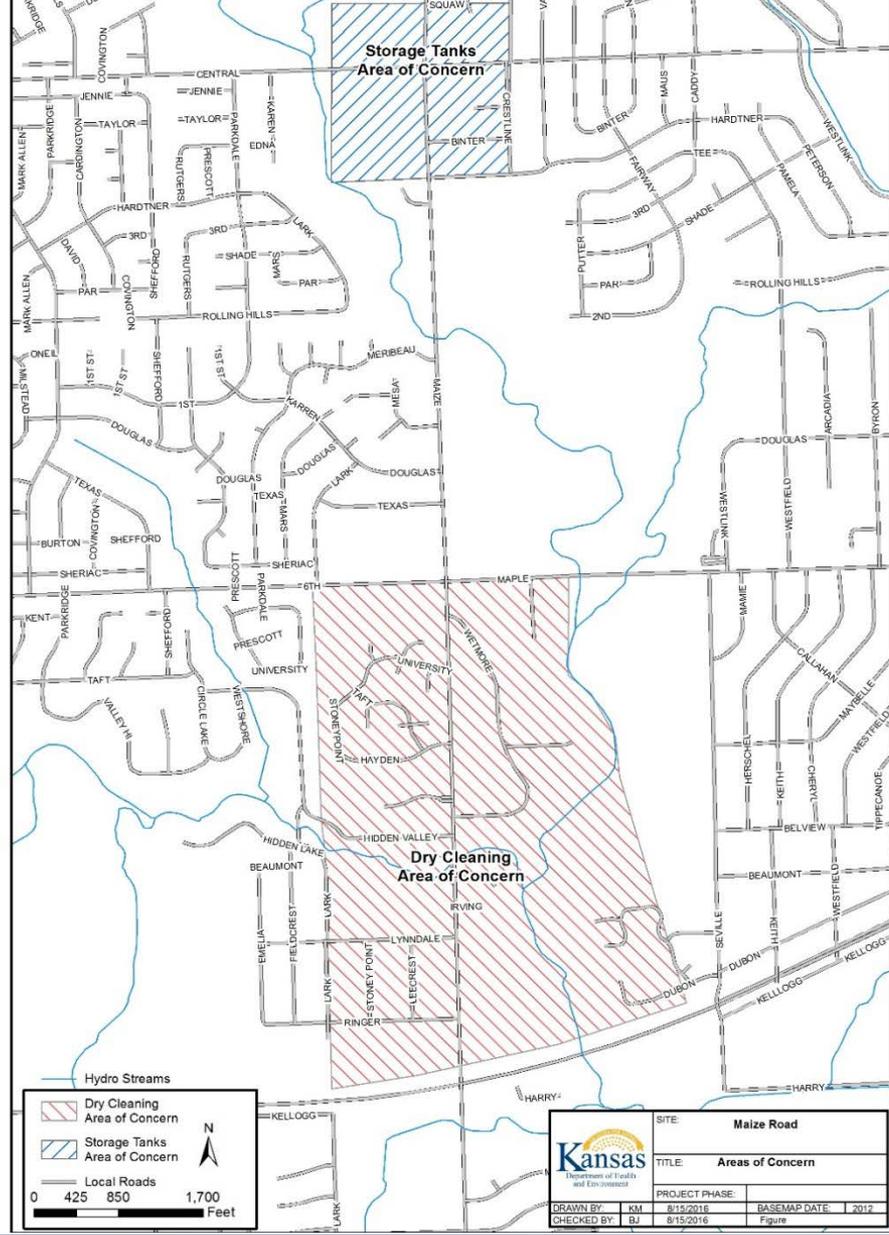
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Situation

As part of an investigation into PCE contamination of private water supply wells, analysis of water collected by the KDHE Assessment and Restoration Section indicated the presence of the chemical MtBE in two domestic drinking water wells and one lawn/garden well near the intersection of Maize and W. Central. As MtBE is associated with gasoline, the Assessment and Restoration Section forwarded the information to the KDHE Storage Tank Section.

The source of the contamination appears to be a former gasoline station that was located on the northeast corner of the intersection.





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Why Do We Have This Problem?

- Petroleum Storage Tank system can develop leaks in the tanks, piping, pipe fittings, and dispensers.
- Leaks can go undetected for a period of time releasing significant volumes of fuel to the environment.



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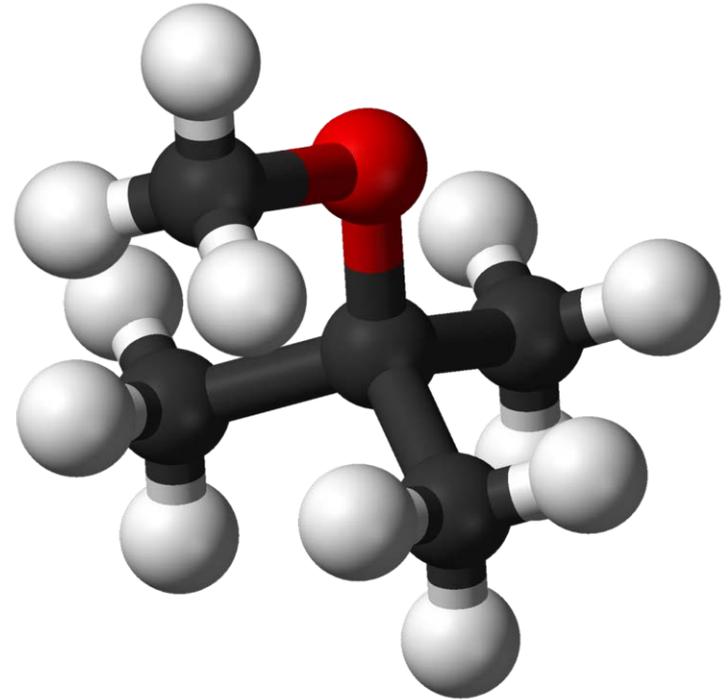


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What is MtBE (Methyl Tertiary-Butyl Ether)

- Oxygenate added in early 1980s
- Octane Booster (replaced tetraethyl lead (leaded gasoline) as an octane booster)
- MtBE was phased out in 2005
- Chemical/Physical Properties
 - High solubility
 - Weakly sorbs to most soils
 - Once dissolved into water, difficult to remove
 - More difficult than other components of gasoline for bacteria in the soil to degrade



Emergency Action

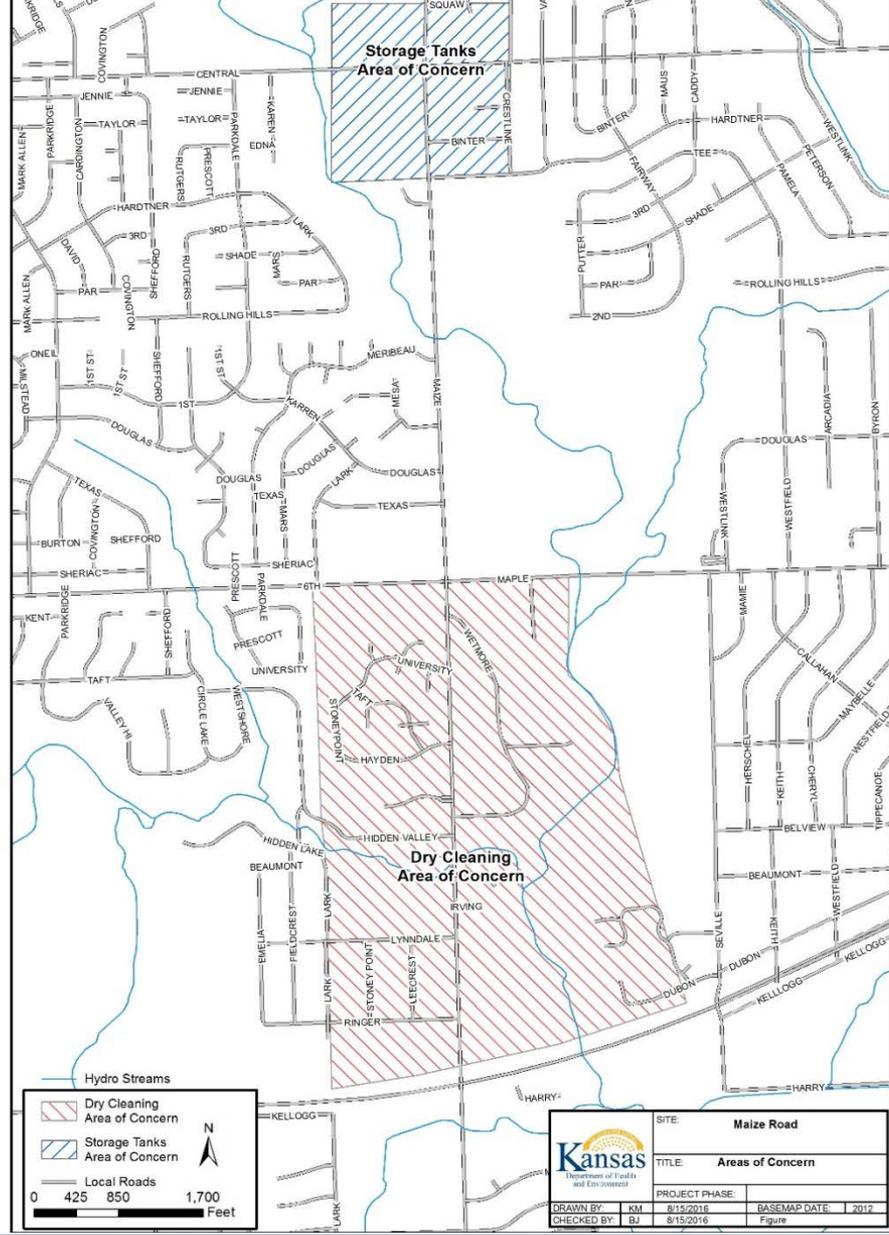
- 8/18/16 KDHE Storage Tank Section contacted the owner of the two homes where MtBE was detected in the drinking water wells.
- 8/19/16 Arrangements were made to have bottled water supplied to the residents until the homes could be connected to City of Wichita public water.
- 8/24/16 KDHE and Geotechnical Services, Inc. (GSI), an environmental consulting firm, canvassed the neighborhood where the MtBE was detected to see if others in the area were drinking the groundwater.



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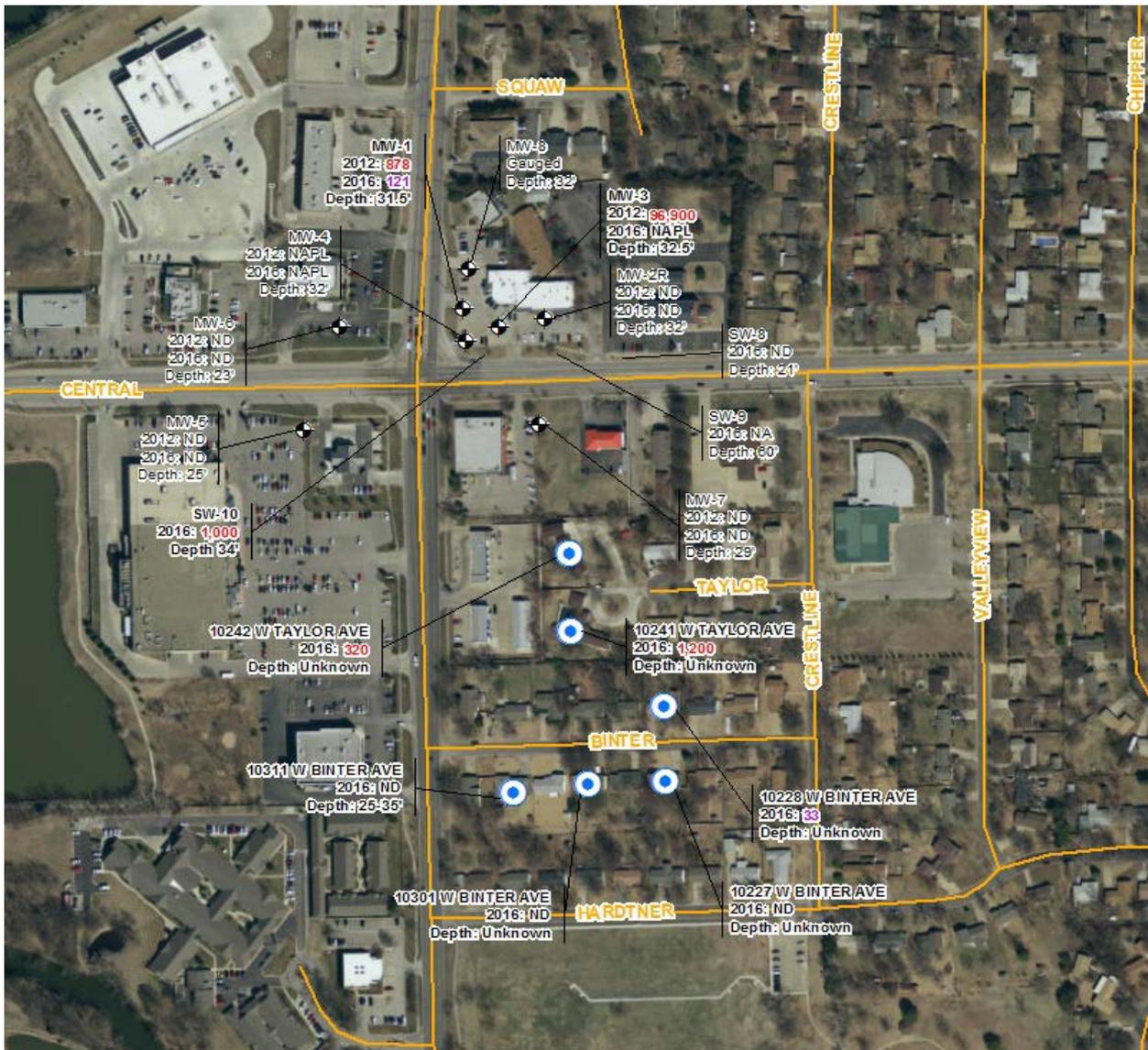
- 8/29/16 Two homes were connected to Wichita public water supply
- Week of September 5th KDHE arranged for water sampling of several additional private water wells located north the intersection of Maize and Central. KDHE also discussed the scope of investigative work with environmental consulting firms.
- Continue sampling of domestic wells of concerned citizens located within and near the area of concern





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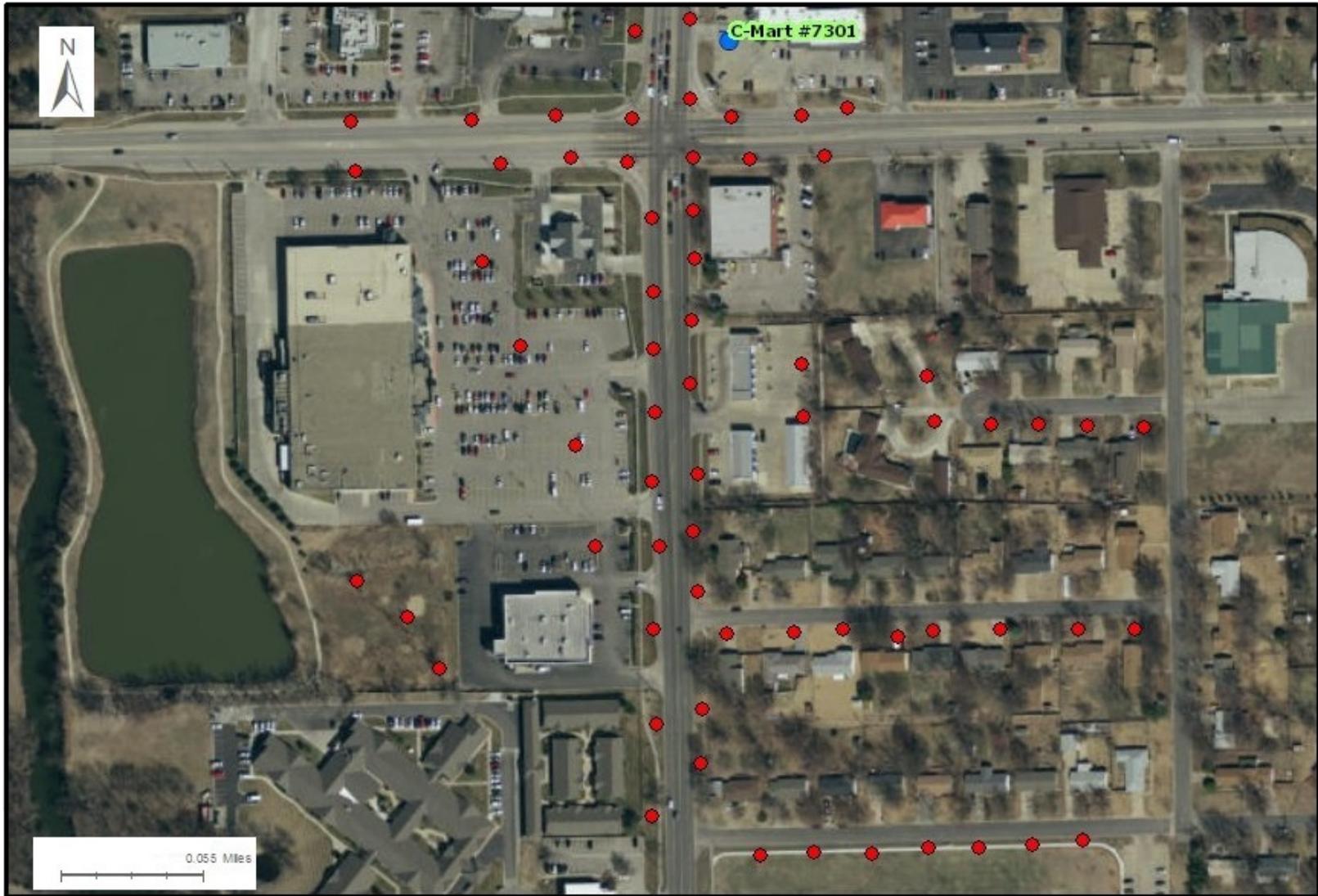


Next Step: Corrective Action

- Corrective Action will include additional investigation work to identify pathway(s) that MtBE is migrating from the former gasoline facility
 - Soil probing, monitoring well installation
- Designing and installing a remedial system to remove the contaminant from the environment
 - Soil excavation, Soil Vapor Extraction, Air Sparging, Oxygen Injection



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Questions



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