

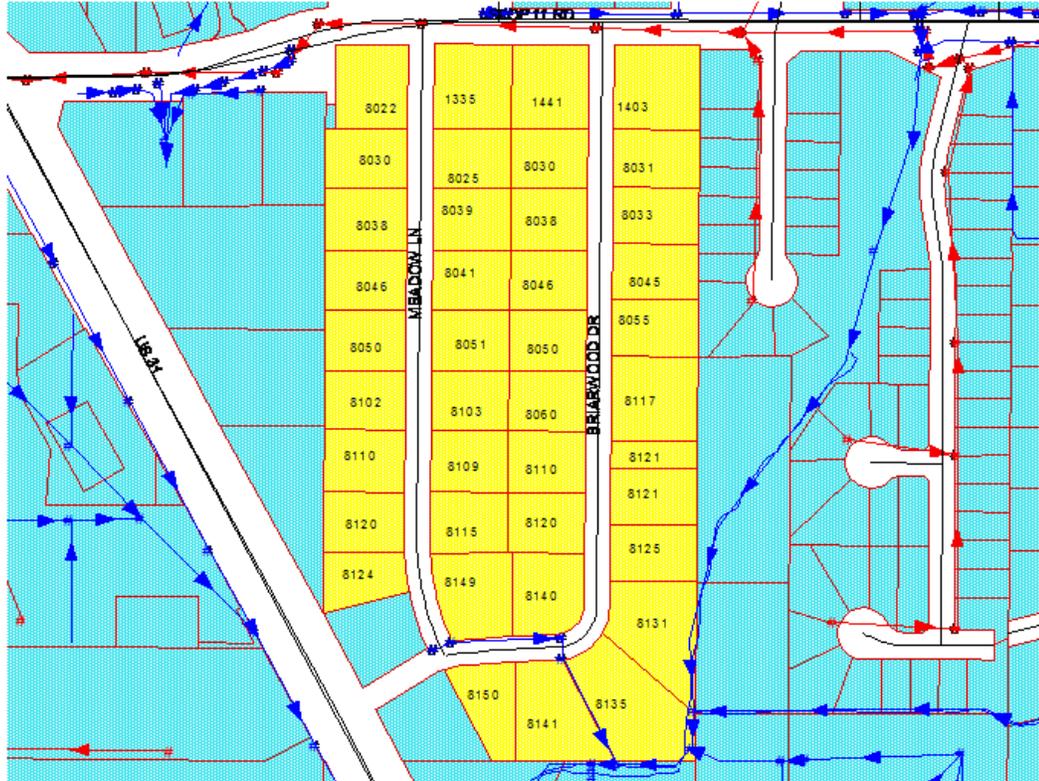
Briarwood Drive/Meadow Lane Well Survey
Summer 2012
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A well survey was performed during the summer of 2012 on Briarwood Drive and Meadow Lane. These two streets are located in the southern portion of Marion County between US 31 and Madison Avenue immediately south of Stop 11 Road. This area was chosen due to it being the only municipally un-serviced street in the general area. It was also chosen due to the fact that this area of Marion County contains New Albany Shale bedrock, which has a high affinity to contain arsenic. The main objective of the survey was to assess the arsenic and bacterial contamination of the well water in the households on this street. There were a total of forty-one (41) properties in the study area, and each was initially sent a letter explaining the objective of the sampling project. Each resident was encouraged to call the Marion County Health Department to schedule a sample. Residents who did not initially call and schedule an appointment were hand delivered a door hangar and were encouraged to call the Marion County Health Department to glean more information. Out of the possible forty-one (41) properties, twelve (12) partook in the survey resulting in 29 % participation. Both bacteriological and chemical parameters were analyzed.

Out of the twelve (12) properties that were sampled, three (3) showed arsenic concentrations that were above the Maximum Contamination Level (MCL). Arsenic is naturally occurring in the bedrock in Marion County and erodes into the ground water from the New Albany shale in the bedrock. Due to the propensity to cause skin and circulatory issues as well as cancer, EPA has set the MCL for arsenic in public water drinking supplies at 10 ug/l. The data shows that there is a range of arsenic concentration in the wells from 2.0 ug/l to 18.7 ug/l. The mean concentration is 4.97 ug/l.

Bacterial contamination was determined to be the major issue in this neighborhood with eight (8) out of the twelve (12), or 67% of the wells showing a presence of either total coliform or E. coli bacteria. The owners were informed of the risks of ingesting both bacterial and chemical contaminated water. Chlorination and reverse osmosis were recommended as treatment options for the bacterial and chemical contamination respectively. Follow-up samples were completed for the households that chose to either chlorinate and/or install reverse osmosis as a way to ensure the efficacy of the treatment.

Briarwood Dr. / Meadow Ln



0.08 0 0.08 0.16 Miles

-  Major Streets
-  Centerlines
-  Streams
-  Stormlines
-  Sanitary Sewer
-  Stormstructures
-  Sewerstructures
-  Parcels

