

New Augusta Neighborhood Well Survey Summary

Background

Due to the absence of municipal water mains near the New Augusta neighborhood, a well survey was completed by the Department of Water Quality and Hazardous Materials Management (DWQHMM) from July 2016 through March 2017. The survey area is comprised of private wells located along Hollingsworth Drive North of 71st Street, see attached map for the entire survey area and the wells tested.

Survey Results

37 properties were identified within the survey area as using private wells. Out of the 37 wells, 7 wells were tested for bacteriological and chemical parameters resulting in a participation rate of 19%.

Sampling results

Bacteria

E. coli bacteria was reported in the sample report for one well and Total Coliform bacteria was reported in the sample reports of all 7 wells or 100% of the wells tested. Well sample results with E. coli or Total Coliform bacteria present are considered unsatisfactory for drinking purposes. Based on previous well sample results, the bacteria unsatisfactory rate for wells in Marion County is 45%. Compared to other well survey areas, the New Augusta neighborhood has an elevated rate of wells with unsatisfactory bacteria results.

Well chlorination instructions were sent out to with the laboratory results; residents were given the opportunity to have their wells tested for bacteria after a well chlorination was completed.

Volatile Organic Compounds (VOCs)

VOCs were below detectable limits (BDL) for 5 of the well results or 71% of the wells tested. Two of the wells (29%) had trace amounts of trihalomethanes, a group of four chemicals typically associated with disinfection by products when chlorine is used for bacteriological disinfection.

Metals

Well samples were analyzed for the following metals: Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Thallium and Zinc.

No metals were above the Maximum Contaminant Level or MCL. Arsenic has been detected above 10 parts per billion (the MCL for Arsenic) in about 16% of the wells the Department has tested throughout Marion County. For the New Augusta well survey, the average arsenic value of four wells with Arsenic levels above detection limits yet below 10 ppb was 3.9 parts per billion (ppb). Two wells contained Iron above the EPA Secondary Drinking Water Standard of 300 ppb.

Anions

Analysis for the following Anions was completed: Chloride, Fluoride, Nitrates, Nitrites, Phosphates, and Sulfates. All anions tested were below the Maximum Contaminant Levels for all 7 wells.




Conclusions

In conclusion, Total Coliform (bacteria) was the primary contaminant and public health concern detected during the groundwater survey. Based on past surveys and well results, the DWQHMM recommends a well chlorination at least every 12 months to ensure disinfection within the well and plumbing lines. Volatile Organic Compounds, Metals and Anions were not detected above the Primary Drinking Water Standard MCL established for each contaminant.

2016 New Augusta Well Survey



Legend

-  New Augusta West Survey Area
-  New Augusta Tested Properties
-  Water Mains