

Pleasant Run Pkwy Neighborhood Groundwater Assessment Summary

Background

On February 20th, 2020, a tanker truck carrying jet fuel crashed and exploded on the ramp from I-465 southbound to I-70 eastbound. When the fire was being put out, fire suppression water and jet fuel ran into nearby stormwater culverts which flow into Pleasant Run. Many of the homes along Pleasant Run in this area use private wells for drinking water. This survey was conducted to determine if this spill resulted in groundwater contamination for nearby residents, specifically looking for fuel components such as benzene, toluene, xylene, and naphthalene.

The area surveyed is located on the east side of Indianapolis in Warren Township, along Pleasant Run. Letters about the survey were sent to 53 properties. Samples were taken at the request of the residents and also during a door-to-door follow up with residents who hadn't yet responded. The samples were taken during the summer and fall months of 2021.

Survey Results

Of the 53 properties that were sent a survey letter, eight partook in the survey – a response rate of approximately 16%. Three of those eight who responded were during door-to-door requests for sampling. Several properties were found to be vacant or had "No Trespassing" signs posted.

Sampling Results

Bacteria

Of the eight properties sampled, three samples (~38%) showed the presence of coliform bacteria. Of the three, one had coliform present in the sample from the outside spigot, but not from the reverse osmosis inside. No *E. coli* bacteria were detected in any of the samples. For the samples that showed the presence of coliform bacteria, the residents were notified and chlorination instructions were sent with the results. Follow up sampling was offered and performed when requested by the resident.

VOCs

Results for volatile organic compounds were all below detection limits.

Anions

Well samples were tested for Chloride, Fluoride, Nitrate, Nitrite, Phosphate, and Sulfate. All anions were below the EPA's maximum contaminant levels (MCLs).

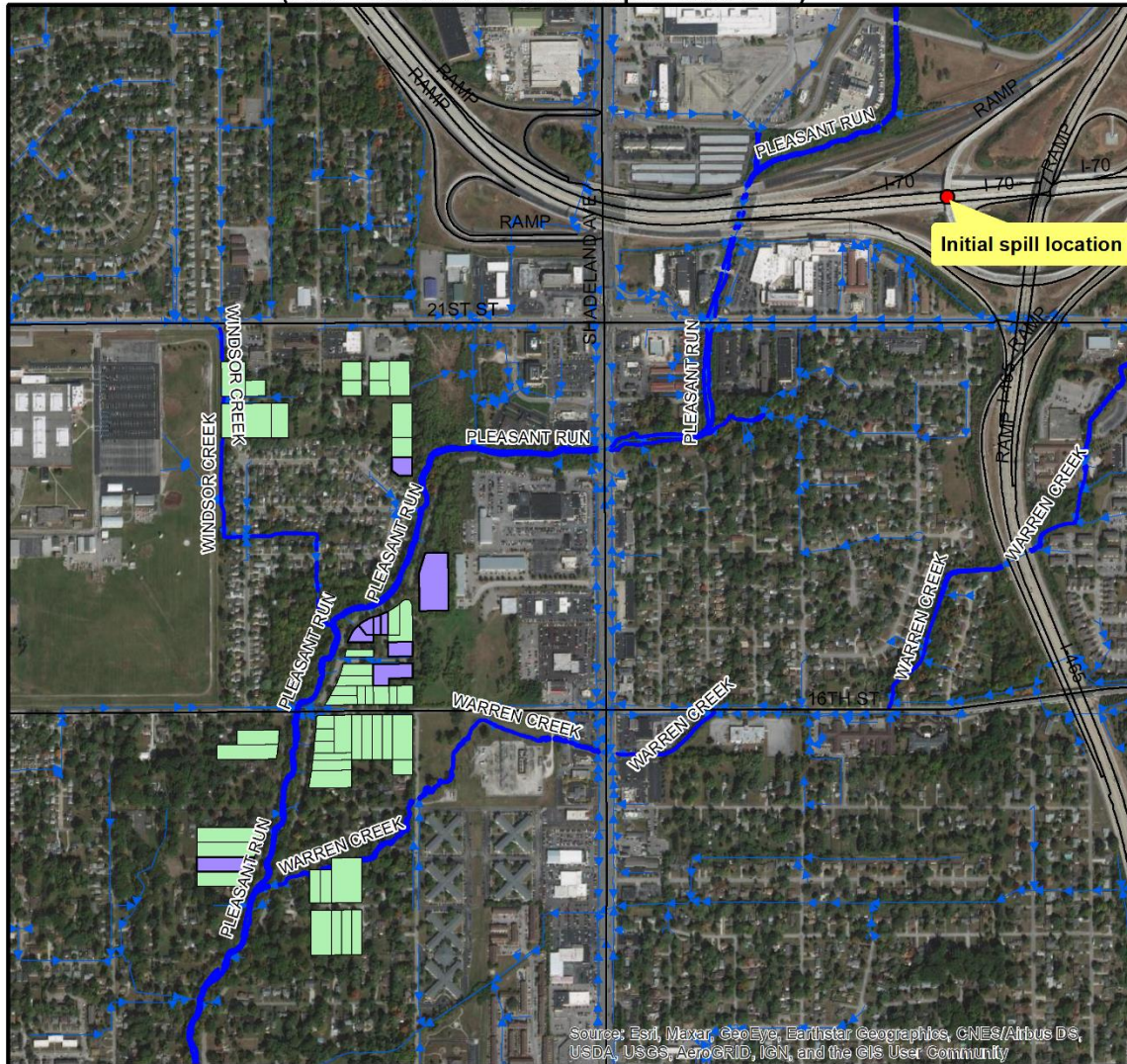
Metals

Samples were analyzed for the following metals: Arsenic, Barium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Thallium, and Zinc. Arsenic was detected in 50% of the samples (four of the eight properties). Of the four properties where Arsenic was detected, two had levels above the EPA's MCL of 10 parts per billion (ppb). The range of the detected Arsenic was from 5.2 ppb to 26.1 ppb. Properties with elevated levels of Arsenic were notified, sent an Arsenic fact sheet and follow up sampling was offered if they chose to treat for Arsenic. An Arsenic speciation test was later performed for one of the properties with elevated Arsenic, which showed_____. All other metals were below the EPA's MCLs.

Conclusions

The primary focus of this groundwater survey was to look for possible contamination from the jet fuel tanker explosion that occurred on February 20th, 2020. This was done by testing for VOCs, which would show if fuel components were present in the groundwater. Since there weren't any VOCs detected in the samples, there does not appear to be groundwater contamination from the spill at the time of sampling. The two contaminants found during the survey were coliform bacteria and Arsenic, which are consistent with other sampling done in Marion County. The limitation to this survey was the lack of participation by residents (about 84%), who did not respond to the letters and door-to-door survey or declined the offer.

Pleasant Run Well Survey 2021 (zoomed out to show spill location)



0 0.05 0.1 0.2 0.3 0.4 Miles



- Sampled
- Not Sampled
- Major Streets
- Major Streams
- Storm Sewers