

**EVE 491/591**  
**Toxicology**

**Case Study #1. "Mary Beth"**

**Part 1. Introduction.**

*The following case is based on a true story that took place around the year 1982.*

Mary Beth watched the children splash in the cool, clear water of a stream at Yellow Creek State Recreation Park. She had stopped to take a short break on her drive home from college to her hometown in western Pennsylvania. This wasn't a holiday trip or even fall break; the fully loaded car told a different story. Mary Beth wouldn't be returning to school to finish the semester. Her mother had been diagnosed with cancer and Mary Beth was withdrawing from school to be with her during surgery and to help her through the grueling process of chemotherapy.

As Mary Beth watched the children play she recalled her own childhood and another stream that wove its way through her home town. Sulfur Creek, as it was called, had not been picturesque and Mary Beth had never played in it. Orange sludge coated the creek bed and stained the water. There were no fish, no insects, and no plants; nothing lived in Sulfur Creek. Along the banks, however, many residents had homes, including Mary Beth's family.

**Questions**

1. List as many concerns or questions that you would have if you were a resident of Mary Beth's hometown.
2. To whom would you look to address your concerns? How would you find answers to your questions?
3. Suggest possible explanations for the color in the water.