

Discussion with Gavin Armstrong from Ohio EPA about the Starkey Junk Yard  
Site in Uhrichsville, OH  
December 10, 2003

- The site was previously a horse farm and a junk yard for many years after that
- The original owner and all the heirs have passed away and could only identify one living relative to claim ownership of the site - the ex-son-in-law. He sold the property to the city.
- The city residents originally wanted to redevelop the site for industrial purposes. Because the property is located on a floodplain, the city leadership decided to make the site into a park.
- Required to sample down to 10 feet
- Ohio EPA sampled, located potential hot spots and modeled the groundwater flow.
- The area had flooded to the point where standing water had an oil sheen on it.
- All groundwater samples came back showing no VOCs - the flooding had carried the contamination elsewhere.
- Identified data points and defined the nature and extent of contamination
- Used DQO? (Not sure what this process is, but I think it's a Triad thing)
- Created a dynamic work plan
- In the Spring of 2003, used a piezometer to identify a location for a permanent monitoring well. They went 19 feet to the saturated zone but found the well dry the next day. Therefore, it appears that there are only lenses of saturated area at the site.
- Found lead in the groundwater - used XRF and sent 10% of the samples to a fixed laboratory for confirmatory analysis. Found that the XRF is 90% accurate. Took over 2,000 samples. At one point, they talked about sending a fixed percentage for fixed laboratory analysis beyond the 10% confirmatory. He said that it costs \$7.50 per single analyte analysis plus approximately \$15 for prep, which totals about \$22.50 per sample. He estimated that it would cost an additional \$45,000 in analytical expenses. His field analysis is 90% accurate and cost about 1/3 of the fixed laboratory price.

#### Procurement Data

- Eight years ago, Gavin made a national QA presentation in DC and advocated making real time decision in the field. He convinced management to purchase a mobile laboratory that included an XRF for metals, photovac GC for VOCs, amino assay kits for oily contaminants like BTEX/PAH/PCBs, and the geoprobe.
- The procurement of the equipment occurred 5-6 years ago and is not performed on a case-by-case basis. They do not rent or lease and use only their own staff.
- Purchased the equipment with grant money. With the WMD funding available, he has identified several pieces of equipment that would be useful for WMD emergencies but also for other purposes on a more regular basis. Purchasing the equipment makes them more accessible in the event of an emergency, because they don't have to be rented. He has gotten several grants with WMD resources.
- This site has proven that field screening can work if applied correctly. It is better to get a

false positive than a false negative, which is what the XRF tends to generate. The false positives are keeping the results on the safe side, rather than false negatives that may miss contamination.