Issue: Bayou Corne Sinkhole, Assumption Parish, LA

Background/Status:
In June and July 2012, Assumption Parish government officials and state government investigate unexplained bubbling in Bayou Corne and Grand Bayou. Then on August 2-3, 2012, an area of wooded swamp located in Bayou Corne began to subside. The area of concern is over the western flank of the Napoleonville salt dome in Assumption Parrish. The dome has aerial dimensions of approximately one mile by three miles and is used for a number of industry related activities, including gas storage caverns and brine mining wells. Brine mining wells are regulated under the UIC program by the Louisiana Department of Natural Resources (LDNR) as Class III injection wells.

EPA R6 conducted a subset of the air monitoring the Louisiana State Police had tasked Louisiana Department of Environmental Quality to conduct. EPA and LDEQ monitored 9 locations on the Texas Brine facility during the approximate 5 weeks of the drilling of the observation well. LDEQ also conducted the monitoring in the neighborhoods. Parameters monitored for:

Carbon Monoxide – CO
Hydrogen Sulfide – H_2S
Volatile Organic Compounds – VOCs
Explosive atmosphere, measured as percent of the lower explosive limit – LEL
Oxygen – O_2

The only elevated readings were caused by exhaust of boats, and vehicles which typically occurred when temperature inversions developed and the fog rolled in. LDEQ has a mobile lab to analyze samples of gas captured from the bubbles, water, and soil. At the request of LDNR, EPA's ASPECT flew over the sink hole area. ASPECT conducted chemical analysis, radiological surveys, and thermo-imaging. No issues identified by ASPECT. Superfund is negotiating an AOC with Texas Brine to recover air monitoring and associated costs at the site.

Message:

- Significant physical hazard posed by the unstable geologic formation.
- Environmental conditions monitored are at background levels.
- Significant community concerns are being addressed by multiple availability sessions hosted by LDNR, State Police, LDEQ, and the Parish government. Data from monitoring and sampling are posted on public websites.

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