

## Calumet Project for Industrial Jobs Air Sampling Report

### Bucket Brigade Sampling Results

Fourteen different toxic chemicals were detected in an air sample taken July 10, 2007 adjacent to the BP refinery in Whiting, Indiana. Columbia Analytical Services, an independent laboratory in Simi Valley, California, analyzed the sample using Environmental Protection Agency (EPA) certified methodology.

The chemicals detected in the sample have been compared to health based levels of concern set by EPA Region VI, Texas, Louisiana, North Carolina and the Agency for Toxic Substances and Disease Registry (ATSDR).

Five chemicals exceeded the health based levels of concern. Acrolein, Acrylonitrile and Carbon Disulfide exceeded multiple levels of concern while Styrene and 1,4 Dichlorobenzene exceeded one.

<b>Chemicals detected</b>	<b>level detected (ppb/v)*</b>
Acrylonitrile	37
Acrolein	5
Carbon Disulfide	51
Styrene	7.3
1,4-Dichlorobenzene	3.1
Toluene	23
Ethylbenzene	4.7
<i>m,p</i> Xylenes	6.4
<i>o</i> -Xylene	2.4
2-Butanone	4.1
n-Hexane	3.9
Acetone	52
Isopropyl alcohol	20
Ethanol	41
*Parts per billion by volume is a unit of measurement	

## **Health Effects of Chemicals Detected**

Acrylonitrile and 1,4 Dichlorobenzene are probable cancer causing chemicals, according to the Agency for Toxic Substances and Disease Registry TOXFAQ's. Styrene and Carbon Disulfide affect the normal functioning of the brain, heart and liver. Little research has been done on Acrolein, information available points to lung damage.

There are no standards for exposure to multiple chemicals, exposure to small children, elderly persons, pregnant women and people with compromised immune systems. The air sample demonstrates that people living in the area may be inhaling 14 toxic chemicals with every breath.

The toxic chemicals detected in the air sample most likely came from BP complex. Many of the chemicals in the air sample are listed as emissions by BP in their Toxic Release Inventory. Confined Disposal Facility's own five monitors have shown the presence of Ethylbenzene, toluene, *m,p*-Xylene, *o*-Xylene, which were also detected in the Calumet Project Bucket Sample.

## **About the Bucket Brigade**

The "Bucket Brigade" is an internationally famous strategy of community tools to monitor your environment for yourself. Residents in 17 countries and over 20 states in the US, are using this method to hold government and polluters accountable. The Bucket Brigade sampling method has been approved by the US EPA. For more information visit [www.gcmonitor.org](http://www.gcmonitor.org)