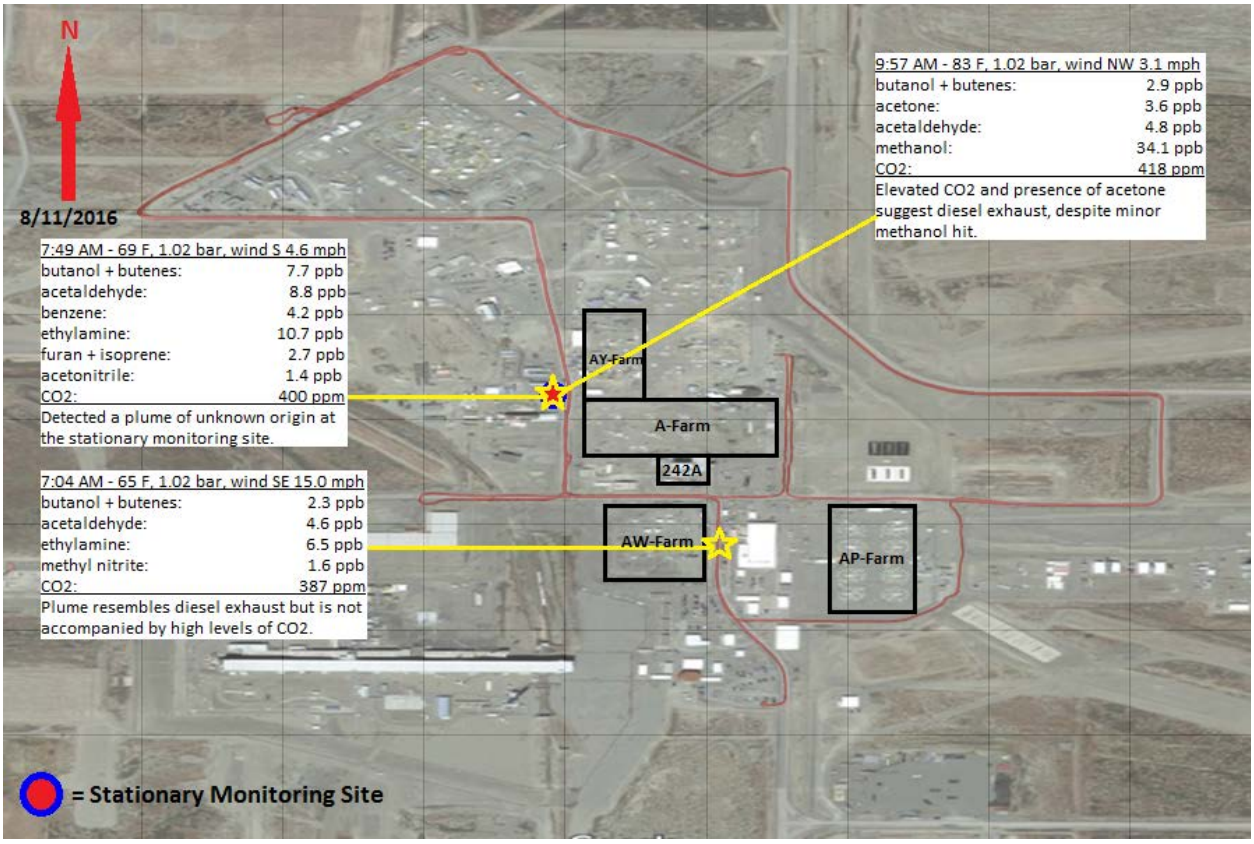
Mobile Lab Results from 8-11-16

The mobile laboratory was used to determine vapors at the Hanford tank farm while travelling through the Hanford tank farms and in specific stationary sites. The specific stationary sites were near the ***242-A Evaporator*** and just east of ***A-Farm***. The results from 8-11-2016 indicate compounds that are typical of partial combustion products, rather than tank sources. There was one plume of unknown origin. In any case, all detected compounds are below the ***Occupational Exposure Limits (OEL)*** for each compound as shown in the table below. Vapor plumes detected were very short durations (less than 2 mins typically) and therefore will not challenge the constant levels of exposure needed to challenge the OEL. The levels detected are consequently well below any immediate effects but may be above odor thresholds. The chemical listing and their associate OELs can be found here:

..\..\..\References\Industrial Hygiene Chemical Vapor Technical Basis RPP-22491_-_Rev_1.pdf



Chemical	OEL	Maximum Concentration Detected (< 2mins)
Acetaldehyde	25 ppm (Ceiling Limit) [1]	0.0088 ppm
Benzene	0.5 ppm	0.0042 ppm
Furan + Isoprene	Furan: 0.001 ppm	0.0027 ppm[2]

[1] The ceiling limit is the concentration that should not be exceeded during any part of the working exposure.
[2] The passing plume had only a few minutes of concentration and therefore does not challenge the OEL.

Butanol + Butenes	20 ppm	0.0029 ppm
Acetonitrile	20 ppm	0.0014 ppm
Methanol	200 ppm	0.0341 ppm
Acetone	250 ppm	0.0036 ppm
Methyl Nitrite	0.1 ppm	0.0016 ppm
Ethylamine	5 ppm	0.107 ppm
CO2	5000 ppm	418 ppm