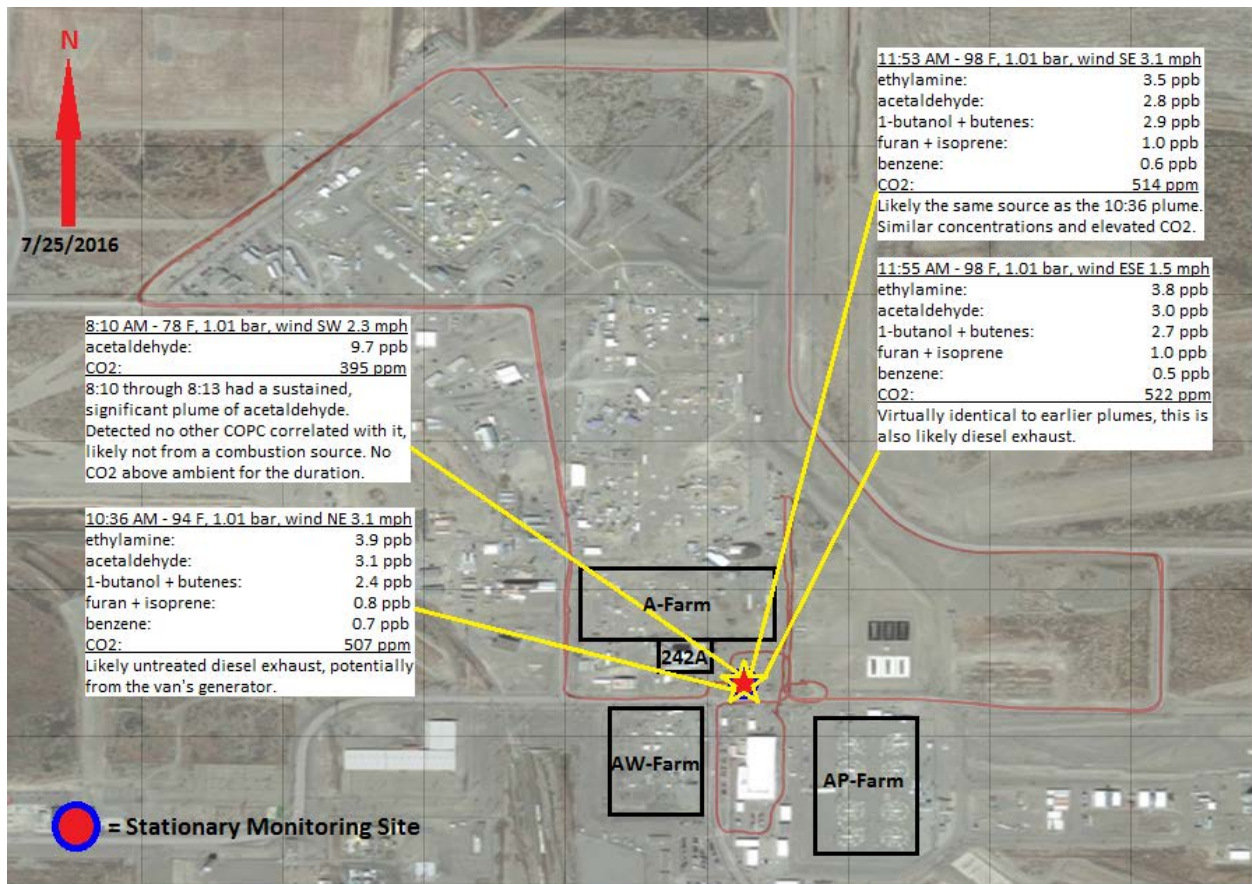


Mobile Lab Results from 7-25-16

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** as shown on the map below. The results from 7-25-2016 indicate compounds that are typical of partial combustion products, rather than tank sources. The only exception is the unique acetaldehyde signal at 8:10 am which lasted for 3 minutes. 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 unidentified compound at Mass 51 is typical of compound fragments that likely have broken down from other compounds. 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
Furan + Isoprene	Furan: 0.001 ppm	0.001 ppm ¹

¹ The passing plume had only a few minutes of concentration and therefore does not challenge the OEL.

(masses equivalent)		
Acetaldehyde	25 ppm (Ceiling Limit) ²	0.0097 ppm
1-butanol/butene	20 ppm	0.0029 ppm
Benzene	0.5 ppm	0.0007 ppm
Ethylamine	5 ppm	0.0039 ppm
CO2	5000 ppm	522 ppm

² The ceiling limit is the concentration that should not be exceeded during any part of the working exposure.