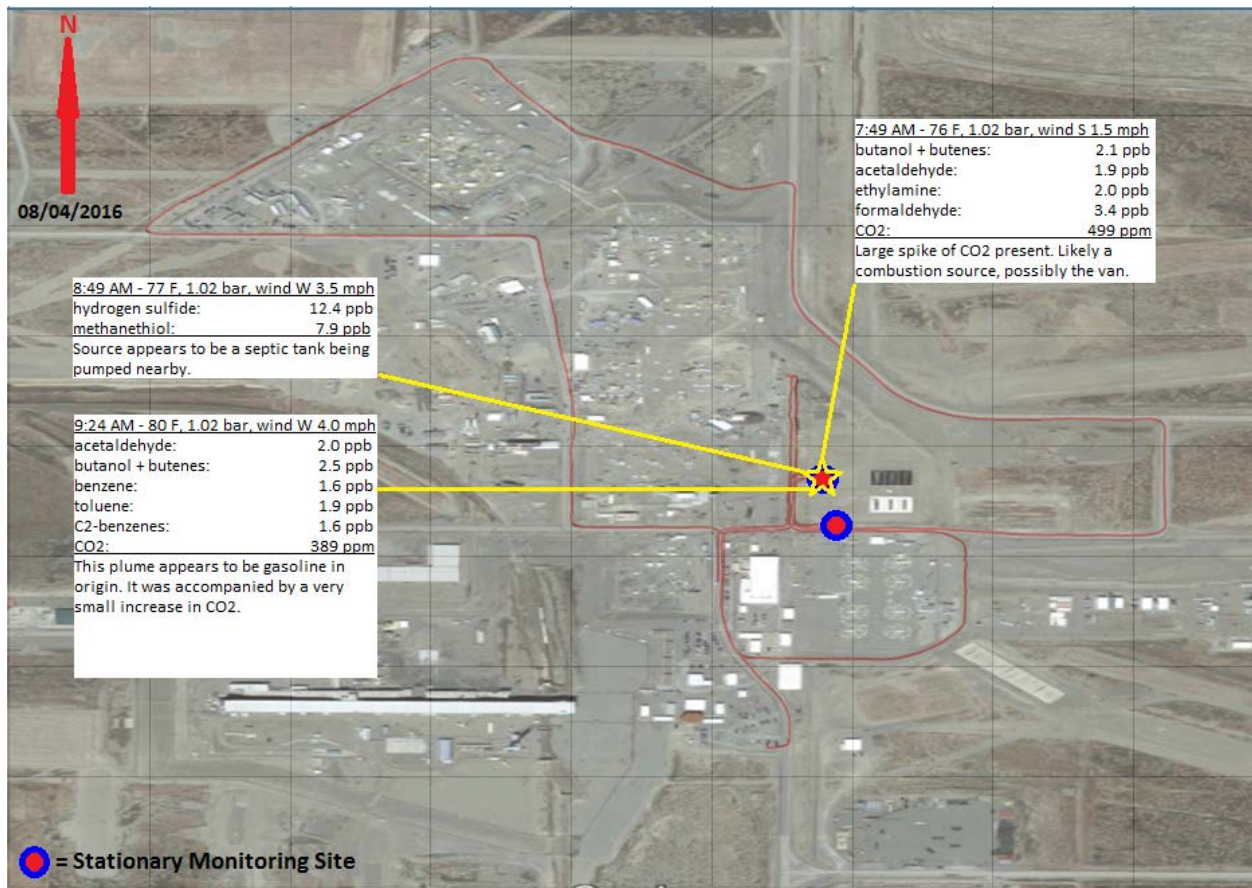


Mobile Lab Results from 8-4-16

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 just The specific stationary site was near the **242-A Evaporator** and just east of **A-Farm**. The results from 8-4-2016 indicate compounds that are typical of partial combustion products and/or septic tank pumping, rather than tank sources. 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
Acetaldehyde	25 ppm (Ceiling Limit) ¹	0.002 ppm
Benzene	0.5 ppm	0.0016 ppm
1-butanol/butene	20 ppm	0.0025 ppm

¹ The ceiling limit is the concentration that should not be exceeded during any part of the working exposure.

Ethylamine	5 ppm	0.002 ppb
Toluene	50 ppm	0.0019 ppm
C2-Benzene	30 ppm ²	0.0016 ppm
Methanethiol	7.3 ppm ³	0.0079 ppm
Formaldehyde	0.3 ppm	0.0034 ppm
Hydrogen Sulfide	10 ppm ⁴	0.0124 ppm
CO2	5000 ppm	499 ppm

² As designated OEL per kerosene equivalent for mixture of hydrocarbons per RPP-22491.

³ Not expected in tanks, value representative of 1-Propanethiol, 2,2-dimethyl per RPP-22491

⁴ Inorganic vapor found in some tanks below 10% of OEL. OEL reported here is OSHA construction standard for vapors (29CFR1926.55 Appendix A)