

Mike Monroney Aeronautical Center P.O. Box 25082 Oklahoma City, Oklahoma 73125

Tuesday, March 19, 2013

National Transportation Safety Board

490 L'Enfant Plaza East

Washington, DC 20594

 ACCIDENT #
 0013
 INDIVIDUAL#:
 001
 NAME:
 TUREN,
 CLIFFORD H.

 DATE OF ACCIDENT
 01/13/2013
 DATE RECEIVED
 01/18/2013

 N #
 4975S
 NTSB #
 ERA13LA111

MODE: AVIATION
PUTREFACTION: No
CAMI REF # 201300013001

LOCATION OF ACCIDENT Dover, DE

SPECIMENS Bile, Blood (Femoral), Blood (Heart), Brain, Gastric, Kidney, Liver, Lung, Spleen, Urine, Vitreous

## AMENDED FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT

CARBON MONOXIDE: The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

>> NO CARBON MONOXIDE detected in Blood (Heart)

CYANIDE: The presence of cyanide is screened by Conway Diffusion, when the COHb level is equal to or greater than 10% or upon special request. Cyanides are quantitated by spectrophotometry and confirmed by chromatography. The reporting cutoff for cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3 ug/mL.

## >> NOT PERFORMED

VOLATILES: The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

>> NO ETHANOL detected in Vitreous

DRUGS: Specimens are analyzed using immunoassay, chromatography, GC/MS, HPLC/MS, or GC/FTIR. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). Drugs and/or their metabolites, that are not impairing or abused, may be reported from the initial tests. See the CAMI Drug Information Web Site for additional information (http://jag.cami.jccbi.gov/toxicology/).

- >> 10 (ug/ml, ug/g) Acetaminophen detected in Urine
- >> 0.081 (ug/mL, ug/g) Dihydrocodeine detected in Urine
- >> Dihydrocodeine NOT detected in Blood (Heart)
- >> Hydrocodone detected in Urine
- >> Hydrocodone NOT detected in Blood (Heart)
- >> 0.194 (ug/mL, ug/g) Hydromorphone detected in Urine
- >> Hydromorphone NOT detected in Blood (Heart)
- >> Naproxen detected in Urine

## CONTINUATION OF REF#: 201300013001 - TUREN, CLIFFORD H.

Russell Lewis, Ph.D. TC, FAA, Forensic Toxicology Research Team CAMI