



DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
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MCHB-IP-RDE

15 NOV 2012

MEMORANDUM FOR Office of the Command Surgeon (LTC (b) (6)), U.S. Central Command, 7115 South Boundary Boulevard, MacDill Air Force Base, FL 33621-5101

SUBJECT: Deployment Occupational and Environmental Health Surveillance Sample Report, Airborne Volatile Organic Compounds, Talukan, Afghanistan, 21 July 2012, U_AFG_TALUKAN_IP_A17_20120721

1. The enclosed report details the assessment of two volatile organic compound air samples collected by 792d Medical Detachment personnel, Talukan, Afghanistan, 21 July 2012.
2. None of the chemicals detected in the samples were identified as potential hazards.

FOR THE DIRECTOR:

(b) (6)

Encl

Portfolio Director, Health Risk Management

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U.S. ARMY PUBLIC HEALTH COMMAND

5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

**Deployment Occupational and Environmental Health Surveillance
Sample Report, U_AFG_TALUKAN_IP_A17_20120721
Health Risk Management Portfolio**

Airborne Volatile Organic Compounds, Talukan, Afghanistan

**Prepared by (b) (6)
Deployment Environmental Surveillance Program**

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Preventive Medicine Surveys: 40-5f1

ACKNOWLEDGEMENTS

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**Deployment Occupational and Environmental
Health Surveillance Sample Report
Airborne Volatile Organic Compounds
Talukan, Afghanistan
21 July 2012
U_AFG_TALUKAN_IP_A17_20120721**

1 References

See Appendix A for a list of references.

2 Purpose

This report provides the U.S. Army Public Health Command (USAPHC), Army Institute of Public Health (AIPH) assessment of the laboratory analytical results and exposure information associated with the samples collected by 792d Medical Detachment personnel on 21 July 2012 at Talukan, Afghanistan according to the U.S. Department of Defense deployment occupational and environmental health (DOEH) surveillance requirements. The assessment serves several purposes. It identifies DOEH hazards that may be related to acute health effects that could occur in personnel during their deployment. It provides an official record of observed exposure conditions for use in future site evaluations. It identifies whether or not there is a potential for chronic health concerns which may require additional characterization. Finally, this report includes preventive steps to reduce or eliminate occupational and environmental exposures, and surveillance and/or sampling recommendations, as necessary.

3 Scope

The assessment of sample results and exposure information in this report follows the process published in the USAPHC Technical Guide (TG) 230 "Environmental Health Risk Assessment and Chemical Exposure Guidelines for Deployed Military Personnel, June 2010 Revision." The assessment is based on limited data representing a specific time period and assesses short-term exposure risks only. Therefore, this report cannot be used alone to estimate the risk of chronic health effects from exposures. In addition, this assessment does not address all DOEH hazards to which U.S. personnel may be exposed.

4 Laboratory Analysis

These deployment air samples were analyzed at the USAPHC, AIPH laboratory for a standard set of volatile organic compounds (VOCs). The complete analytical sample results can be viewed in the Defense Occupational and Environmental Health Readiness System (DOEHRS). Log into the DOEHRS and search for the samples using the DOEHRS sample identification numbers (IDs) provided in Table 1.

Table 1. Sample Identification Information

DOEHRS Sample ID	Sample ID Reported on Field Data Sheet	Sample Site	Date and Time Sample Collected	Sampling Duration	Sample Invalid (Yes/No) Reason for Invalid Sample
00007C5Q	AFG_TALUKA_20120721_01DVS	10 m away from burn pit	2012/07/21 1025	500.0 minutes	No
00007C5T	AFG_TALUKA_20120721_01DVS	10 m away from burn pit	2012/07/21 1025	500.0 minutes	No

5 Exposure Setting

Table 2 contains information about the sampling location, environmental conditions, and associated potential population exposure. The information was provided on the field data sheets and/or exposure assessment worksheet submitted with the samples unless otherwise noted. Correction and clarification of exposure assumptions by the sampling unit is encouraged.

Table 2. Exposure Information

Questions About Exposure	Information Provided and Assumptions
Why was this sample/sample set collected?	Routine sampling of volatile organic compounds in the ambient air pathway as described in the Occupational and Environmental Health Site Assessment.
What population is exposed and how?	All base camp personnel breathe the ambient air. However, it is assumed that personnel spend part of each day indoors.
What is the timeframe under consideration?	Although personnel will be deployed to this location for approximately 9 months, only the day sampled is being assessed.
Where was the sample/sample set collected?	The samples were collected 10 meters from the burn pit.
What is known about location, activity, setting and potential sources of contamination that may affect exposure?	Plastics, metal cans, and card board are burned in the burn pit. Diesel fumes are also present.

6 Prescreen

None of the chemicals detected in the samples were identified as potential hazards because their concentrations were not greater than USAPHC TG 230 military exposure guidelines (MEGs). The prescreening is conducted as described in USAPHC TG 230, section 3.4.3. The sample results were compared to MEGs on 30 August 2012.

7 Limitations

7.1 Field Data Quality

Field data provided with the samples were adequate.

7.2 Sample Receipt at USAPHC Laboratory

The sample set was received at the USAPHC at a temperature of 28 degrees Celsius. The samples were packaged correctly.

7.3 Laboratory Data Quality

No laboratory data quality issues associated with this sample set were identified.

8 Recommendations

Maintain communication with USAPHC, AIPH points of contact (POCs) and continue standard surveillance of airborne VOCs in accordance with defined Occupational and Environmental Health Site Assessment (OEHSA) Exposure Pathways and sampling plans for your location.

An OEHSA was completed for Talukan, Afghanistan on 30 July 2012. Update the OEHSA annually or as the exposure scenario changes.

9 Points of Contact

The USAPHC, AIPH POCs for this assessment are Ms. (b) (6) and Mr. (b) (6). Ms. (b) (6) may be contacted at e-mail (b) (6) and Mr. (b) (6) may be contacted at e-mail (b) (6), or DSN (b) (6) or commercial (b) (6).

(b) (6)

Environmental Scientist
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Approved by:

(b) (6)

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Appendix A

References

Department of Defense. 2004. Department of Defense Directive 6490.02E, *Comprehensive Health Surveillance*. <http://www.dtic.mil/whs/directives/corres/pdf/649002Ep.pdf>

Department of Defense. 2006. Department of Defense Instruction 6490.03, *Deployment Health*. <http://www.dtic.mil/whs/directives/corres/pdf/649003p.pdf>

Department of the Army. 2006. Field Manual 5-19, *Composite Risk Management*. <https://rdl.train.army.mil/soldierPortal/atia/adlsc/view/public/23137-1/FM/5-19/TOC.HTM>

U.S. Army Public Health Command (Provisional). 2010. Technical Guide 230, *Chemical Exposure Guidelines for Deployed Military Personnel*. <http://phc.amedd.army.mil/PHC%20Resource%20Library/TG230.pdf>