Letter Health Consultation

AMERICAN CAMPGROUND

DEL RIO, VAL VERDE COUNTY, TEXAS

Prepared by the Texas Department of State Health Services

MARCH 25, 2010

Prepared under a Cooperative Agreement with the U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Agency for Toxic Substances and Disease Registry Division of Health Assessment and Consultation Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

A health consultation is a verbal or written response from ATSDR or ATSDR's Cooperative Agreement Partners to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR or ATSDR's Cooperative Agreement Partner which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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LETTER HEALTH CONSULTATION

AMERICAN CAMPGROUND DEL RIO, VAL VERDE COUNTY, TEXAS

Prepared By:

Texas Department of State Health Services Under Cooperative Agreement with the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

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DAVID L. LAKEY, M.D. COMMISSIONER

March 18, 2010

Mr. John Lissner CID, Val Verde Sheriff's Office PO Box 1201 Del Rio, Texas 78841

Subject: American Campground, Val Verde County, Texas

Mr. Lissner,

On March 15, 2010, you contacted the Texas Department of State Health Services (DSHS), Health Assessment and Consultation and Toxicology Program regarding concerns with the drinking water at the American Campground near Del Rio, Texas. Specifically, you wanted to know if the levels of arsenic and thallium found in the drinking water were safe for consumption and whether there was any indication that the presence of these contaminants in the water could have been intentional. We reviewed the information that you provided and concluded that the levels of arsenic and thallium in the water sample were below the levels that would be expected to harm people's health. Additionally, while it is impossible to use these data to state with any degree of certainty how the contaminants may have gotten into the water, the levels present were very low and would not be consistent with an intentional act. Below is a summary of our findings.

Background

The Val Verde Sheriff's Department was investigating complaints about the safety of the drinking water at the American Campground in Del Rio, Texas. Based on the complaints and communications with the Texas Commission on Environmental Quality (TCEQ), a tap water sample was collected on March 1, 2010 and analyzed for arsenic and thallium by a contract laboratory using Environmental Protection Agency (EPA) Method 200.8.

On March 15, 2010, the Sheriff's Department forwarded the drinking water data to DSHS for evaluation. Specifically, they requested an evaluation of the potential public health hazards associated with arsenic and thallium found in the drinking water sample. Additionally, they wanted to know whether there was any indication that the presence of these contaminants in the water could have been intentional.

Results and Discussion

The level of arsenic found in the drinking water sample was 2.2 micrograms of arsenic per liter of water (μ g/L). The Maximum Contaminant Level (MCL) for arsenic is 10 μ g/L. The MCL is a contaminant specific health-based standard established by the EPA as the highest concentration allowed in the public drinking water supply. The concentration of arsenic in the water was almost 5 times lower than the MCL. The levels found also were lower than the non-regulatory noncancer health-based screening value for children of 3.0 μ g/L.

The concentration of arsenic found in this sample is consistent with the levels previously found in water from this area. The United States Geological Survey (USGS) and the Texas Water Development Board (TWDB) have collected data to determine arsenic concentrations in groundwater across the United States and in Texas. Based on groundwater samples collected by the USGS from 1973 through 1997, concentrations of arsenic in groundwater in Val Verde County and the Del Rio area are typically $1.0~\mu g/L$ to $3.0~\mu g/L$; some areas have levels as high as $50.0~\mu g/L$ [1]. The TWDB reports similar results for Val Verde County; the concentrations of arsenic in state wells are generally $1.0~\mu g/L$ to $3.0~\mu g/L$ with levels as high as $10.5~\mu g/L$ [2].

Thus, the risk of experiencing health effects from exposure to arsenic in water from the American Campground would be no different than that of people drinking water from other public drinking water supply sources. The level of arsenic detected and its similarity to the levels previously found in this area are not consistent with intentional tampering.

Summary of arsenic (µg/L) evaluation.

PQL (Practical Quantitation Limit or detection limit)	2.04 μg/L
American Campground drinking water	2.21 μg/L
Typical level in Val Verde County groundwater	1 μg/L-3 μg/L
Health-based noncancer screening value	3 μg/L
MCL (Maximum Contaminant Level)	10 μg/L

Thallium was not detected in the drinking water sample. Since the detection limit of $1.0 \,\mu\text{g/L}$ was below the MCL for thallium of $2.0 \,\mu\text{g/L}$, we would not expect health effects to be associated with exposure to the thallium in the drinking water.

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Conclusions

Based on the arsenic and thallium levels measured in the water sample, the risks associated with drinking this water would not be any different from those experienced by people drinking water from other public drinking water systems. Thus, based on these results we conclude that the arsenic and thallium in the drinking water would not be expected to harm people's health.

Unknowns

These conclusions are based solely on the levels of arsenic and thallium found in the drinking water sample and do not consider any other potential contaminants.

Recommendations

If concerns about the American Campground drinking water continue it may be prudent to collect additional samples to be tested for a larger number of contaminants.

Public Health Action Plan

No public health actions are needed related to the tap water sample.

If you have any questions, please contact me at (512) 776-3004.

Sincerely,

Carrie M. Bradford, MS, PhD Toxicologist Health Assessment and Consultation and Toxicology

References

- 1. Ryker, S.J., Nov. 2001, Mapping Arsenic in Groundwater: Geotimes v.46 no.11, p.34-36. Available at http://www.agiweb.org/geotimes/nov01/feature_Asmap.html.
- 2. Texas Water Development Board. March 2010, Groundwater Database Report, Infrequent Constituent Report for Val Verde County. Available at http://www.twdb.state.tx.us/publications/reports/GroundWaterReports/GWDatabaseReports/Database%20Reports/Val%20Verde/Infrequent%20Constituent.pdf.

Certification

The Texas Department of State Health Services prepared this letter health consultation for American Campground, Del Rio, TX under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It was completed in accordance with approved methodology and procedure existing at the time the health consultation was initiated. Editorial review was completed by the cooperative agreement partner.

//Jeff Kellam, M.S.

Technical Project Officer

Division of Health Assessment and Consultation (DHAC)

ATSDR

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation and concurs with its findings.

Alan W. Yarbrough

Cooperative Agreement Team Leader, DHAC, ATSDR