

Health Consultation

PRIVATE GROUNDWATER WELL QUALITY NEAR THE
TRANSITECH, INCORPORATED SITE
622 WEST 6TH STREET
FORDYCE, DALLAS COUNTY, ARKANSAS 71742

EPA FACILITY ID: ARD092919620

SEPTEMBER 19, 2006

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

An ATSDR health consultation is a verbal or written response from ATSDR 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 which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

You May Contact ATSDR Toll Free at
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HEALTH CONSULTATION

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EPA FACILITY ID: ARD092919620

Prepared by:

Arkansas Department of Health and Human Services
Division of Health
Under Cooperative Agreement with the
U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry
Atlanta, Georgia 30333

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Statement of Background and Issues

In April 2003, the Arkansas Department of Health (now referred to as the Arkansas Department of Health and Human Services' Division of Health (ADOH)) prepared a health consultation under cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). The health consultation addressed a complainant's suspicion that his private groundwater well had been contaminated. The source of the suspected contamination was believed to be Transitech, Incorporated – a business that adjoins the complainant's property [1].

Located at 622 West 6th Street in Fordyce, Arkansas, Transitech, Inc. has been repairing and salvaging railroad cars under the current ownership since 1992 (see Figure 1 of the Appendix). The operations often consist of tank steaming and purging, exterior blasting, interior painting and sealing, temporary storage and disposal of non-specific commodities contained in the railroad cars at the time of receipt, and other activities [1,2].

During the investigation that led to the 2003 health consultation, ADOH concluded from an evaluation of data generated from the well's groundwater laboratory analysis that the water quality at the time posed no public health hazard. However, also during that time, "unknown materials" were observed in 55-gallon drums and on the ground of the Transitech, Inc. site. ADOH recommended that the Arkansas Department of Environmental Quality (ADEQ) identify the unknown materials to ensure they were not hazardous. Furthermore, ADOH recommended that public access to the site be restricted [1].

As part of a follow-up on the 2003 health consultation recommendations, an ADOH/ATSDR employee accompanied ADEQ on a Complaint Investigation and Compliance Evaluation Inspection (CEI) of the Transitech, Incorporated facility on February 18, 2004 (see Appendix, Figures 2-4). It was noted during the inspection that the recommendation to restrict site access had not been addressed.

The CEI report states that conditions existed during the site inspection that violate the Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 23, Hazardous Waste Management. Some of the violations include: "failure to determine if a solid waste is a hazardous waste; treating hazardous waste on site without a permit; and engaging in hazardous waste management contrary to the provisions of Regulation No. 23 or in such a manner or place as to create or is likely to create a public health hazard or to cause water or air pollution within the meaning of the Arkansas Water and Air Pollution Control Act as amended." ADEQ subsequently levied a civil penalty against Transitech, Incorporated for the violations [2,3].

The CEI findings along with his health-related issues heightened the original complainant's concern that his well might be contaminated; he, therefore, requested additional sampling be conducted. ADOH personnel collected groundwater samples from the complainant's private groundwater well on August 3, 2004.

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July 20, 2005, ADEQ, in a proposed Consent Administrative Order (CAO), requested Transitech, Inc. submit a sampling and analysis plan “designed to determine the horizontal and vertical extent, rate of migration, type, and concentration of any hazardous substance or pollutant present in the environment at or near the locations identified in the CEI report and at any other location at the facility where environmental contamination is known, suspected, likely, or is possible to exist ...” [3]. At the time that this document was completed, no such plan has been approved by ADEQ nor implemented on behalf of Transitech, Inc.

On July 13, 2006, ADOH personnel conducted a follow-up site visit. The purpose of the visit was to gather area information to aid in the preparation of a community needs assessment. Additionally, the visit provided an opportunity to confirm the private groundwater well was no longer in use. An employee of the Fordyce Water Company, that now provides potable water to the complainant’s residence, confirmed that the service-line from the well had been properly severed.

This health consultation was intended to address the combined findings of additional groundwater sampling and the sampling and analysis sought by ADEQ in its proposed CAO. However, ADEQ and Transitech, Inc. remain in negotiations with regards to the contamination assessment called for in the CAO. ADOH program personnel evaluated the groundwater sample data and prepared this health consultation under a cooperative agreement with ATSDR. Future data obtained from the implementation of an approved plan between ADEQ and Transitech, Inc. will be evaluated and health consultation(s) prepared, as necessary.

Discussion

The private well groundwater collected by ADOH on August 3, 2004, was tested for volatile and semi-volatile organic compounds, polychlorinated biphenyls and metals. Analytical results of the water from the well were compared to the Environmental Protection Agency’s (EPA) National Primary Drinking Water Standards (NPDWS). NPDWS are health-based standards, and consuming water that exceeds these standards can – in some situations – result in adverse health effects. No NPDWS was exceeded [4].

ADOH mailed a personal correspondence explaining the water testing results and a copy of the analytical data to the complainant in September 2004. In February 2005, the complainant requested and received a copy of the site-specific health consultation published on April 30, 2003, and all related photos taken by ADOH personnel. In May 2005, the complainant informed ADOH that his home was now connected to the local public water supply. The electrical power source that operated the well pump has been disconnected, thus eliminating any future exposure pathway to the groundwater.

Community Health Concerns

This health consultation was prepared to address a complainant’s concern that his family’s private drinking water well might be contaminated. Transitech, Incorporated’s

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violations of APC&EC Regulation No. 23, Hazardous Waste Management – documented in 2004 – heightened his concern.

Child Health Considerations

ADOH and ATSDR recognizes that infants and children may be more vulnerable to exposures than adults when faced with contamination of air, water, soil, or food. Critical periods exist during development, particularly during early gestation, but also throughout pregnancy, infancy, childhood and adolescence [5]. This vulnerability is a result of the following factors:

- Children are more likely to play outdoors and bring food into contaminated areas.
- Children are shorter and their breathing zone is closer to the ground, resulting in a greater likelihood to breathe dust, soil, and heavy vapors.
- Children are smaller and receive higher doses of chemical exposure per body weight.
- Children’s developing body systems are more vulnerable to toxic exposures, especially during critical growth stages in which permanent damage may be incurred.

The detected levels of chemicals were below their respective health comparison values and do not pose a health hazard to those exposed.

Conclusions

Testing conducted on the private groundwater well in August 2004, revealed no chemicals above their respective health comparison values. The water poses *no public health hazard* to exposed individuals.

Recommendations

No recommendations relating to the groundwater well are indicated at this time.

Public Health Action Plan

The purpose of the Public Health Action Plan (PHAP) is to ensure that this Health Consultation not only identifies any public health hazards, but also provides a plan of action designed to mitigate and prevent adverse human health effects resulting from exposure to hazardous substances in the environment. The PHAP implemented by ADOH for Transitech, Incorporated is as follows:

Completed Actions

- ADOH (or ADH) prepared a groundwater data health consultation in April 2003.

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- ADEQ, accompanied by an ADOH representative, conducted a Complaint Investigation of the Transitech, Incorporated facility on February 18, 2004.
- ADEQ conducted a Compliance Evaluation Inspection (or CEI) of the Transitech, Incorporated facility on April 5, 2004.
- ADOH personnel collected groundwater samples from complainant's well in August 2004.
- ADOH mailed a personal correspondence and a copy of the analytical data to the complainant in September 2004.
- In February 2005, the complainant received a copy of the site-specific health consultation, published on April 30, 2003, and all related photos taken by ADOH personnel.
- ADOH personnel conducted a follow-up site visit in July 2006.

Future Activities

- ADEQ will continue deliberations with Transitech, Incorporated regarding the resolution of the CEI violations.
- Should future conditions at the site warrant reassessment, ADOH will look at additional data as it becomes available.
- ADOH will complete a community needs assessment.
- ADOH will conduct health education in the community as needed, and/or requested.
- ADOH will complete a follow-up health consultation(s), as necessary.

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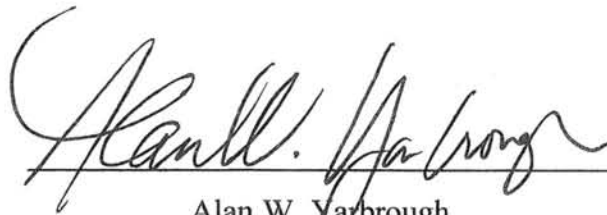
Certification

This health consultation for Transitech, Incorporated was prepared by the Arkansas Division of Health 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.



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



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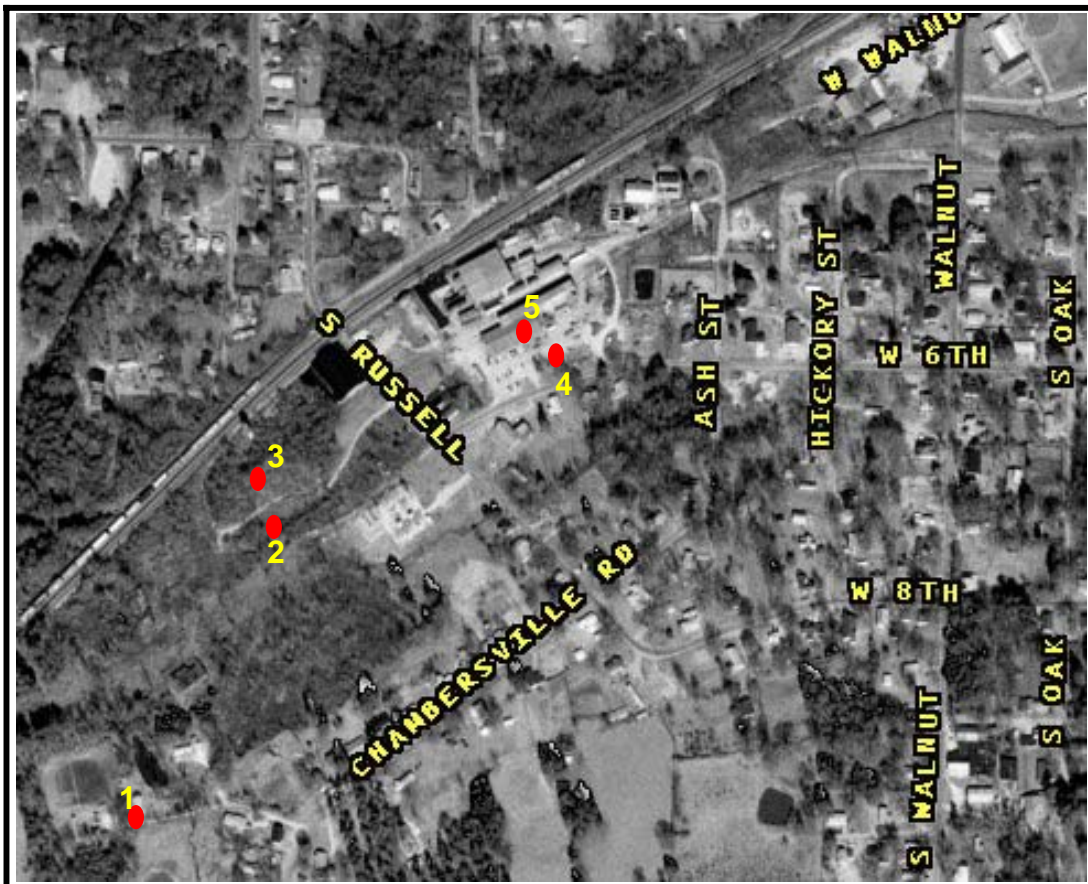
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2. Arkansas Department of Environmental Quality. Hazardous Waste Compliance Evaluation Inspection Report, Transitech, Inc. September 2, 2004.
3. Arkansas Department of Environmental Quality. Transitech, Inc. Proposed Consent Administrative Order (CAO). July 20, 2005.
4. U.S. Environmental Protection Agency. List of Drinking Water Contaminants & MCLs. Available at: <http://www.epa.gov/safewater/mcl.html>. Accessed August 30, 2004.
5. U.S. Environmental Protection Agency. Strategy for Research on Environmental Risks to Children. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development. 2000. EPA/600/R-00/068, Section 1.2.

Appendix

**TRANSITECH, INCORPORATED
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Figure 1. Aerial photo of Transitech, Incorporated and surrounding area



Map Legend

- 1 - Groundwater sampling site
- 2 - Approximate location of open barrel reported to contain paint waste (see Figure 2)
- 3 - Approximate location of motor oil spill (see Figure 3)
- 4 - Approximate location of barrels containing uncharacterized liquids (see Figure 4)
- 5 - Office of Transitech, Incorporated

**Photographs taken during Arkansas Department of Environmental
Quality's Complaint Investigation**

Figure 2. Open barrel reported
to contain paint waste



Figure 3. Motor oil spill

Figure 4. Barrels containing
uncharacterized liquids

