

## **MEMORANDUM**

**SUBJECT:** Review of sampling data for the Lovers Lane Lead Site

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**TO:** Jeff Lippert, On Scene Coordinator US EPA  
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### **BACKGROUND**

During excavation for the installation of a water main in the right-of-way of Abrigador Trail in Plainfield Charter Township (Kent County, MI), the excavation contractor encountered a large number of broken automobile battery casings. After consultation with the Michigan Department of Environmental Quality (MDEQ), the excavation contractor analyzed the soils from the battery debris area using total and TCLP methods for lead. The soils failed the toxicity characteristic for lead. The contractor over-excavated the area where the water main was placed and transported the excavated soils and battery casings to an approved hazardous waste disposal facility in Detroit, Michigan.

It was determined based upon observations by the contractor and MDEQ staff, that the battery casing disposal area likely extends onto the adjacent property at the corner of Abrigador Trail and Lovers Lane and perhaps further into the right-of way of Abrigador Trail. The property adjacent to the battery casing disposal uses an individual well for its water supply as do several other homes in the area.

The MDEQ has requested the assistance of the US EPA Emergency Response Branch in defining the extent of the remaining lead contamination and if possible removing the lead contaminated soils and battery casing debris.

### **STATEMENT OF THE ISSUES**

OSC Lippert has request an evaluation of the sampling data from the Lovers Lane in regards to human health concerns for lead exposure.

### **CONCLUSIONS AND RECOMMENDATIONS**

In total 15 surface soil samples were collected from the area along with 3 subsurface soil samples. Groundwater samples were also collected from the area but will not be discussed in this report.

The concentrations of lead in surface soils range from 21 mg/kg to 7,100 mg/kg. The US EPA removal action level for lead in residential soils is 400 mg/kg respectively. Four of the fifteen surface soil samples were in exceedance of US EPA removal action levels.

Subsurface lead concentrations range from 1,300 mg/kg to 4,200 mg/kg. The lead concentrations in these samples were at minimum three times the residential removal action level established to protect human health.

The area of the Lovers Lane site is a residential neighborhood with high levels of lead in both surface and subsurface soils. It is recommended that further delineation of the contamination be performed along with removal of contaminated soils with lead concentrations in excess of the US EPA removal action level of 400 mg/kg.