

**United States Environmental Protection Agency**  
**Region IV**  
**POLLUTION REPORT**

**Date:** Tuesday, March 13, 2007

**From:** Alyssa Hughes

**Subject:** Investigation and Ongoing Construction

American Creosote

S. Church and Railroad Ave intersection, Louisville, MS

Latitude: 33.1073960

Longitude: -89.0568070

<b>POLREP No.:</b>	5	<b>Site #:</b>	04F2
<b>Reporting Period:</b>	2/20/07 - 3/3/07	<b>D.O. #:</b>	0207-F4-0029
<b>Start Date:</b>	12/4/2006	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	8/13/2005	<b>Response Type:</b>	Time-Critical
<b>Demob Date:</b>		<b>NPL Status:</b>	NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>	MSD004006995	<b>Contract #</b>	68-S4-02-06
<b>RCRIS ID #:</b>			

#### **Site Description**

The American Creosote site is an NPL site currently in the feasibility study phase of RI/FS stage. Following the emergency response in August of 2005, the On-Scene Coordinator noted that the removal program has the authority to respond to the presence of creosote waste on the Site. The remedial program enlisted the support of the ERRB in order to address the ongoing threat to which they are unable to respond.

Please see Initial Pollution Report for additional information.

#### **Current Activities**

On February 20, 2007, OSC Hughes remobilized to the Site in order to continue clearing and construction activities and to begin the geoprobe investigation. ERRS Contractor returned to the Site to complete clearing and road construction activities. Several areas along the unnamed tributary at the north end of the Site have been cleared during this reporting period. The road was completed up to the confluence of Hughes Creek and the unnamed tributary.

In addition to the ERRS contractor work, investigatory efforts were made in order to comprehensively delineate the lateral and vertical extents of free phase product. Since the purpose of this removal action is to mitigate the ongoing release of product into the creek, it is imperative to define where this product is present and mobile in the subsurface. Although the previous investigations characterize contamination across the Site, they fail to identify the locations and depths where liquid creosote is visible. In order to accomplish this task, personnel from EPA's SESD were on-site in order to drive borings at several locations across the Site. The crew utilized a GeoProbe 6610D with direct push technology. The cores were visually inspected and logged by Ed Bates, a geologist with EPA's Office of Research and Development. The vital information captured as a result of the investigation includes the location of free phase product, the soil characterization and description of the subsurface, and the confirmation of the presence of a confining layer acting to prohibit the vertical migration of any contamination. A total of thirteen borings were cored and logged at various locations along the banks of Hughes Creek and the unnamed tributary, and east parallel to Baremore Street. One boring was located on the south side of Baremore Street along the banks of the creek in order to determine whether any free phase product had traveled beneath the street. No free phase, and minimal staining and odor were observed in this boring. Two clean borings, defined as not containing any free phase creosote, were required in order to specify the beginning and end points for the sheet piling. In addition to OSC Hughes, ERRS contractors, EPA ORD and SESD personnel; START personnel, RPM Mike Arnett and his contractor, and MDEQ personnel were on-site during this period as well.

Samples were also collected from monitoring wells on-site. START personnel utilized an oil-water interface probe in order to determine the presence of DNAPL (dense non-aqueous phase liquid) and/or LNAPL (light non-aqueous phase liquid). No indications of either were found in any of the monitoring

well samples.

### **Planned Removal Actions**

The containment of the source at the former lagoon area will consist of installation of a barrier system, PVC sheet piling, between the creek and the source area in order to mitigate the ongoing release into the creek. Once the seepage from the source is controlled; removal, treatment and disposal of creosote contaminated soils and sediments in the wood chip pile area and Hughes Creek may be addressed.

### **Next Steps**

All of the equipment necessary to begin installation of the sheet piling is currently on-site. The equipment includes a crane, a vibratory hammer, a steel mandrel used to guide the sheet piles, a forklift, water tanks and hoses, and the polyvinyl chloride (PVC) sheet piles. The mandrel manufacturer will be on-site next week in order to guide and monitor several test runs outside the area of concern. Once the crew is familiarized with the process, installation of the wall will begin at the eastern most point located parallel to Baremore Street.

### **Key Issues**

The sheet piles were manufactured in 30 foot lengths based on the information gathered in the remedial investigation which indicated the presence of a consistent confining layer in the vicinity of 28 to 30 feet. The borings sampled during this investigation indicate the presence of a confining layer at various depths ranging from 12 to 20 feet. This presents the problem and possibility of punching through the confining layer, subsequently creating a pathway for the vertical migration of product. Therefore, several alternatives to address this potential issue will have to be evaluated. The sheet piles are driven with water lubricating the surface between the steel and the PVC via chambers and ventricles in the mandrel. The possibility of swapping hose to a bentonite slurry mix once the pile is driven, and backfilling the void as the mandrel lifts has been discussed. The sheet piles may also be driven into the confining layer, but not through it, and then cut off from the surface.

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