

US EPA ARCHIVE DOCUMENT



West Lake Update

March 24, 2016

EPA Releases First Round of Comprehensive Phase 1 Investigation Information

EPA is releasing selected data, tables, and figures collected during the Phase 1 site investigation to determine the extent of RIM in Operable Unit 1, Area 1, of the West Lake Landfill. The data, tables, and figures depict the locations of soil borings, sampling locations, and gamma scans that were used to determine the extent of RIM in the landfill. EPA is conducting a thorough Quality Control/Quality Assurance review of the Comprehensive Phase 1 report and will release it once it's finalized.

EPA Region 7 has conducted a quality control review of the Comprehensive Phase 1 investigation data and information provided by the Potentially Responsible Parties (PRPs). The information and data, including a map depicting the revised extent of radiologically-impacted material (RIM) is now available on the agency's West Lake Landfill website.

The information and map released today provide data from the field work including the Gamma Cone Penetrometer Testing. EPA is releasing the information consistent with its past practices of releasing final information after completion of an extensive review and quality control process. EPA's review process that is still underway for the final report is a robust effort designed to ensure that the PRPs' work, and analyses meet the agency's strict scientific standards and the goals of the investigation. As soon as the final report is complete and approved, EPA will post that document to the website.

The data and map released help answer the following three questions:

1. Where is the radiologically-impacted material (RIM)?

The Extent of RIM map depicts areas of RIM based on sampling points included in the Phase 1 Investigation and from historical site investigations. The Phase 1 investigation was conducted to determine the extent of RIM in Operable Unit

1 (OU-1), Area 1 of the West Lake Landfill. To accomplish the Phase 1 objective, contractors for the responsible parties under EPA oversight collected more than 120 soil samples from 110 borings and conducted gamma scans from across Area 1, to determine areas with RIM present. The soil samples were then analyzed in a certified laboratory to ensure the scientific accuracy and integrity of the data. The Phase 1 investigation identified RIM in areas of the landfill not identified during previous site investigations as shown on the Extent of RIM map. The Phase 1 investigation also determined that RIM was not present in certain areas previously presumed to contain RIM.

2. Is there any change to health risks associated with the site as a result of the new data?

While the footprint of RIM within the West Lake Landfill has been revised, the health risks associated with the site remain consistent with previous studies. For the community surrounding the site, there are no significant health risks posed by the radiological wastes contained at the West Lake Landfill. Health risks for on-site workers also remain consistent with previous studies. On-site workers that conduct activities on Area 1 and Area 2 are subject to strict health and safety protocols while on-site, including scanning for radiological contamination before exiting the controlled exclusion zones. Additionally, risks associated with the potential for surface fires occurring in areas where RIM is near the surface are being mitigated by the current Removal Action to install the non-combustible cover in portions of Areas 1 and 2 of OU-1.

3. How does this new data relate to the subsurface smoldering event (SSE) in the Bridgeton Landfill?

The Phase 1 data indicate that RIM has been identified further south and beneath a portion of the Bridgeton landfill known as the "Muffin Top". However, on-site monitoring from temperature monitoring probes, gas extraction wells, and landfill subsidence, indicate that the SSE remains in the South Quarry, hundreds of feet from the RIM and that there is no rapid movement of the SSE towards the North Quarry or the RIM in OU-1. The SSE is monitored and managed under the regulatory authority of the Missouri Department of Natural Resources. All information related to oversight and monitoring of the Bridgeton Landfill is posted on their website (<http://dnr.mo.gov/bridgeton/>). In December, EPA announced

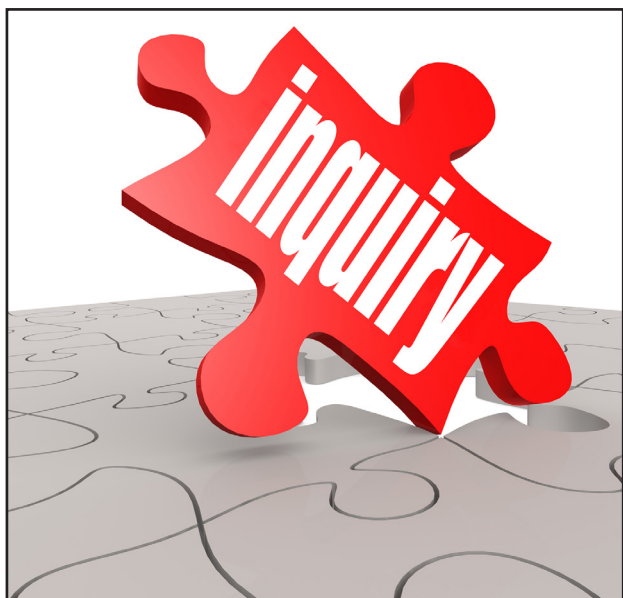
its decision to require the Potentially Responsible Parties at the site to construct a physical isolation barrier, as well as install additional engineering controls, to prevent the SSE from contacting or impacting the RIM in OU-1. EPA will release additional information regarding the isolation barrier when the technical and legal details of this work are complete.

Progress on Surface Fire Mitigation Field Work

In December 2015, EPA Region 7 issued a unilateral order to the parties at the site to prepare and implement surface fire mitigation measures in Operable Unit 1, Areas 1 and 2, of the West Lake Landfill where radiologically impacted material (RIM) may be at or near the surface. The work includes cutting and laying in place brush, covering the brush with a permeable geotextile cover, and then placing eight inches of crushed rock on top of the geotextile cover. This layered cover is collectively known as the non-combustible cover. This work will alleviate concerns with potential surface fires in areas where RIM is at or near the surface and reduces the risk of off-site migration of contaminants that could result from removing the

vegetation. In addition to reducing the risk of surface fires, the non-combustible cover also reduces the health risks for on-site workers who enter OU-1 by providing additional shielding between the RIM and the workers. Work crews under EPA oversight began installing the non-combustible cover in February 2016, and the work is progressing at a steady pace. Construction of the non-combustible cover in Operable Unit 1, Area 1, is complete. Final confirmation from soil sampling will ensure that all areas with RIM known to be at or near the surface are cleared of vegetation and covered. Results from recently collected soil samples are being analyzed for confirmation that identified areas of surface RIM have been covered. In Area 1, about two acres have been covered with the non-combustible cover, while in Area 2, more than eight acres have been covered so far, totaling 21,000 tons of crushed rock for both areas. Crews working for the PRPs under EPA oversight are continuing to work on placing the non-combustible cover in Area 2.

EPA expects the surface fire mitigation field work to be completed later this spring. EPA is providing regular updates, including progress photographs of the site work, to its Facebook and Twitter pages. Links to those pages are included in the West Lake Update.



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

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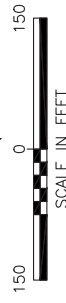
www3.epa.gov/region07/cleanup/west_lake_landfill



LEGEND

-  OU-1 WASTE DISPOSAL AREA 1
-  OU-1 APPROXIMATE EDGE OF REFUSE
-  APPROXIMATE EDGE OF REFUSE
-  EDGE OF QUARRY HIGHWALL
-  EXTENT OF RIM
-  BORINGS WITH ELEVATED GAMMA AND/OR RADIUM OR THORIUM ABOVE UNRESTRICTED USE LEVELS

BORINGS WITH ELEVATED GAMMA AND/OR RADIUM OR THORIUM ABOVE UNRESTRICTED USE LEVELS



- NOTES:**
- AERIAL TOPOGRAPHY PROVIDED BY COOPER AERIAL SURVEYS CO. AND IS DATED FEBRUARY 10, 2015
 - ALL ELEVATIONS ARE ABOVE MEAN SEA LEVEL (AMSL)

Figure 15
Extent of Radiologically-Impacted Material in Area 1
 West Lake Landfill Superfund Site

EMSI Engineering Management Support, Inc.

