

EPA April/May 2016 Sampling Investigation Results

Grenada Manufacturing, LLC

EPA Presentation
August 2016

Agenda:

Environmental Study, Grenada MS – April/May 2016

- Indoor Air
- Outdoor Air
- Soil, sediment and groundwater study
- Facility Study

Next Steps

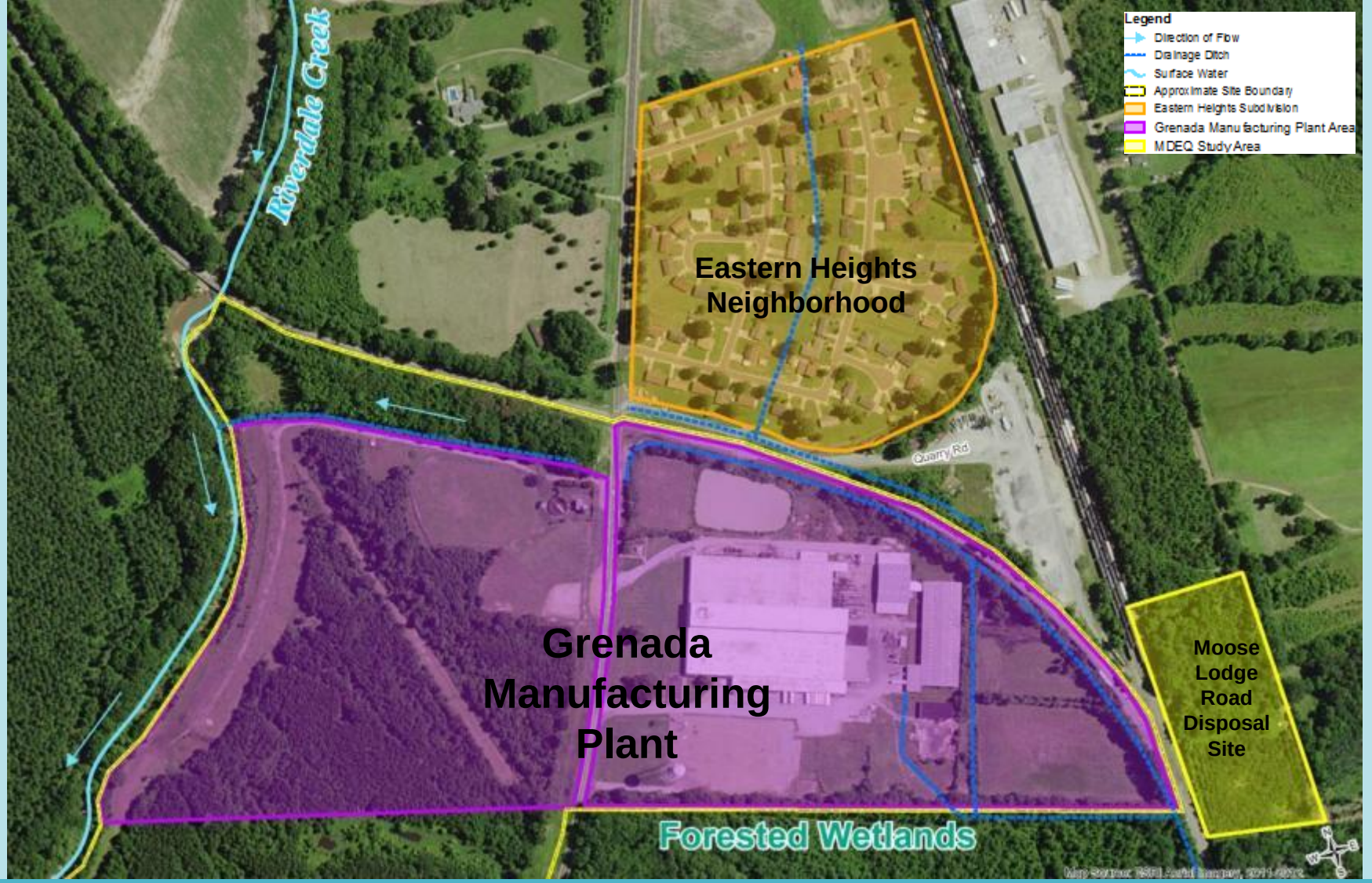
Environmental Study – April/May 2016

April 2016 - EPA conducted soil, sediment and groundwater sampling at the Eastern Heights neighborhood and at the Grenada Manufacturing, LLC facility

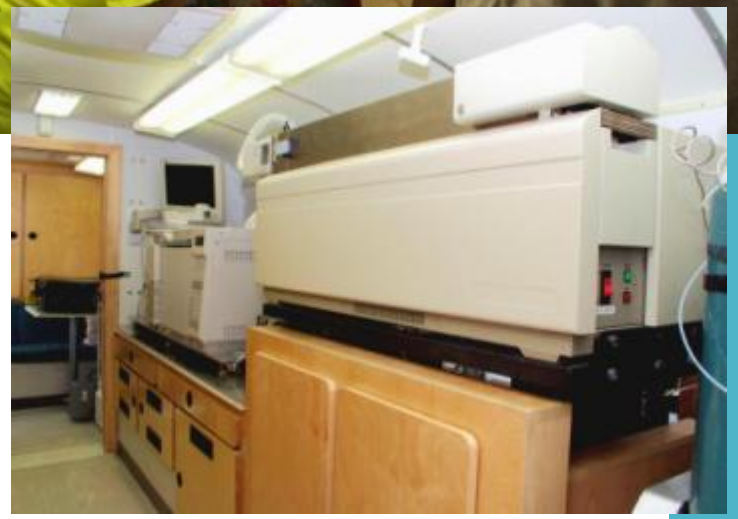
May 2016 – EPA conducted additional indoor and outdoor air sampling in the Eastern Heights neighborhood. This is the second phase of the vapor intrusion study being conducted in the Eastern Heights neighborhood. The first phase involved 6 homes, and the second phase expanded to 17 homes, with a total of 23 homes being investigated

The investigations are part of a precautionary approach to protect public health and determine whether residents are being exposed to unsafe levels of trichloroethene (TCE) in indoor or outdoor air.

Based on results received to date, EPA has determined that there is no immediate threat to public health in the Eastern Heights neighborhood due to TCE.


Legend
Direction of Flow
Drainage Ditch
Surface Water
Approximate Site Boundary
Eastern Heights Subdivision
Grenada Manufacturing Plant Area
MDEQ Study Area
Riverdale Creek
Eastern Heights Neighborhood
Quarry Rd
Grenada Manufacturing Plant
Moose Lodge Road Disposal Site
Forested Wetlands

Study Areas



Eastern Heights Neighborhood Indoor Air Study

Indoor air was tested inside 17 homes.

EPA used two kinds of air sampling methods:

1) A mobile laboratory (EPA's Trace Atmospheric Gas Analyzer, or TAGA bus) to instantaneously measure the indoor air and sub-slab air throughout each home.

2) A SUMMA canister measured air over a 24-hour period. Sub-slab air beneath the homes was also monitored.

Vapor Intrusion Study Area

1st Phase – 6 homes targeted

2nd Phase – 17 homes targeted

Sampling Port Drilling: Sub-slab

Tedlar Bag Sampling: Sub-slab

Indoor Air Results

EPA did **not** find that chemicals present in the groundwater were entering homes via vapor intrusion.

Chemicals not related to the Facility were found in both the SUMMA canisters and the TAGA bus screening.

TAGA Monitoring with the Teflon Tube

Outdoor Air Study

EPA monitored the outdoor air throughout the Eastern Heights neighborhood and the Facility property.

Four air monitoring stations were set up in the neighborhood, and air samples were collected during 24-hour periods over 3 days (May 3-5, 2016).

The mobile laboratory (TAGA bus) also monitored the outdoor air throughout the neighborhood and the Facility property. The TAGA bus drove 4.25 miles.

Outdoor Air Study Results

24 hour air monitoring stations: TCE was detected in only 1 of the 15 samples at a low level below the screening level for residential indoor air.

TAGA Bus: Eastern Heights

No TCE or TCE-related chemicals were detected

TAGA Bus: Facility Property

TCE and TCE-related chemicals were detected in the outdoor air near the Facility plant building and near a drainage ditch. ***Though the levels were low, the data may indicate that contaminated groundwater is moving from below ground to the surface into ditches within the Facility property boundary.***

Area-Wide TAGA Bus Screening (4.25 miles)

Eastern Heights Soil, Sediment and Groundwater Study

EPA collected environmental samples from various locations throughout the Eastern Heights neighborhood.

Soil, sediment and groundwater samples were collected.

Surface soil at the playground was sampled in areas where children were most likely to come into contact with the soil (like beneath the swings and at the bottom of the slide).

Neighborhood Soil, Sediment and Groundwater Results

EPA did not encounter evidence of buried waste material in any of the soil borings.

No TCE or TCE-related chemicals were detected in the soil at the playground.

No chemicals related to the Facility were detected in the sediments in the drainage ditch.

TCE and TCE-related chemicals were detected in the groundwater at shallow depths (15 feet deep) in the Eastern Heights neighborhood, consistent with results previously reported by the Facility.

No one is exposed to the groundwater because it is not a source for drinking water.

Facility Study – April 2016

EPA collected samples on the Facility property, including the plant, the former disposal area and outfall ditch.

Samples were also collected in nearby areas, including the area between the Facility and the neighborhood.

Air, sediment, surface water and soil were tested in order to supplement existing information.

The results will be detailed in the Expanded Site Inspection (ESI) Report and will be used in the ongoing clean-up of the Facility and surrounding areas.

Upon completion (within 30 days, end of Sept), the ESI Report will be made available on the Grenada website: **www.epa.gov/grenadacleanup**.

Next Steps:

EPA has directed Grenada Manufacturing, LLC to complete the following work:

- Improve the Permeable Reactive Barrier (PRB)
  - *EPA approved the PRB Pilot Study Work Plan in April 2016. Work began in May 2016 and is ongoing.*
- Enhance remediation at the TCE Source Area
  - *Two treatment alternatives were submitted in May 2016. EPA will approve the final treatment option based on results from the PRB Pilot Study.*
- Conduct an indoor air study inside the Facility's main plant building
  - *Sampling will start upon EPA approval.*
- Conduct additional groundwater sampling
  - *EPA is awaiting results from additional on-site groundwater sampling by the Facility.*

Next Steps Continued:

EPA plans to return to the Eastern Heights neighborhood to do the following:

September 2016 – Additional outdoor air sampling in the Eastern Heights neighborhood

November/December 2016 – A second round of seasonal vapor intrusion sampling at the 17 homes that were tested in May 2016.

Questions?

www.epa.gov/grenadacleanup

Please see the website for updates and site related reports.