



East Palestine Train Derailment Emergency & Cleanup

U.S. EPA, November 6, 2023

East Palestine Train Derailment Response

PHASE 1 EMERGENCY RESPONSE

Overseen by
state and local
authorities

with support
from EPA and
other federal
agencies

PHASE 2 ENVIRONMENTAL CLEANUP

EPA orders
Norfolk
Southern to
conduct all
cleanup actions



ENVIRONMENTAL PROTECTION AGENCY
REGIONS 3 AND 5

IN THE MATTER OF:

East Palestine Train Derailment Site
East Palestine, Columbiana County, Ohio

Norfolk Southern Railway Company,

Respondent

Proceeding under Section 106(a)
of the Comprehensive Environmental
Response, Compensation, and Liability
Act, as amended, 42 U.S.C. § 9606(a).

CERCLA Docket No. V-W-23-C-004

**UNILATERAL ADMINISTRATIVE
ORDER FOR REMOVAL ACTIONS**

Appendices

Appendix A – Health and Safety Plan

Appendix B - Site Security Plan

Appendix C - Air Sampling and Analysis Plan

Appendix D - Main Line Interim Soil Removal Plan

Appendix E - Characterization and Remediation Work Plan for Derailment-Area Soil

Appendix F - Phase I – Preliminary Residential / Commercial / Agricultural Soil Sampling Plan

Appendix G - Surface Water Sampling and Analysis Plan

Appendix H - Sediment Sampling Work Plan

Appendix I - Groundwater Characterization Work Plan

Appendix J - Potable Water Sampling Work Plan Update

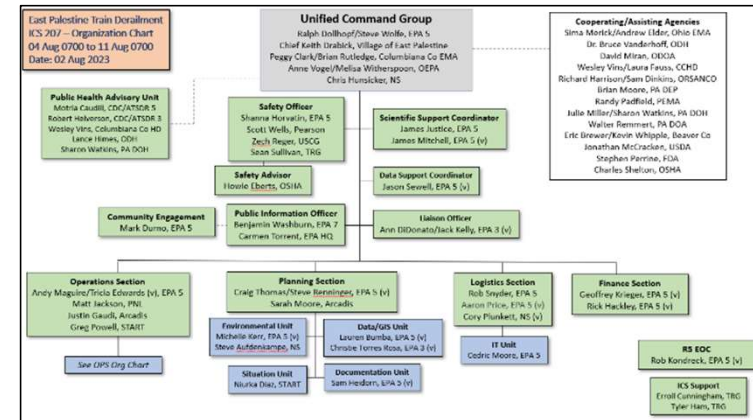
Appendix K - Sentinel Well – Monitoring Well Installation and Groundwater Sampling Work Plan

Appendix L - Waste Sampling and Management Plan

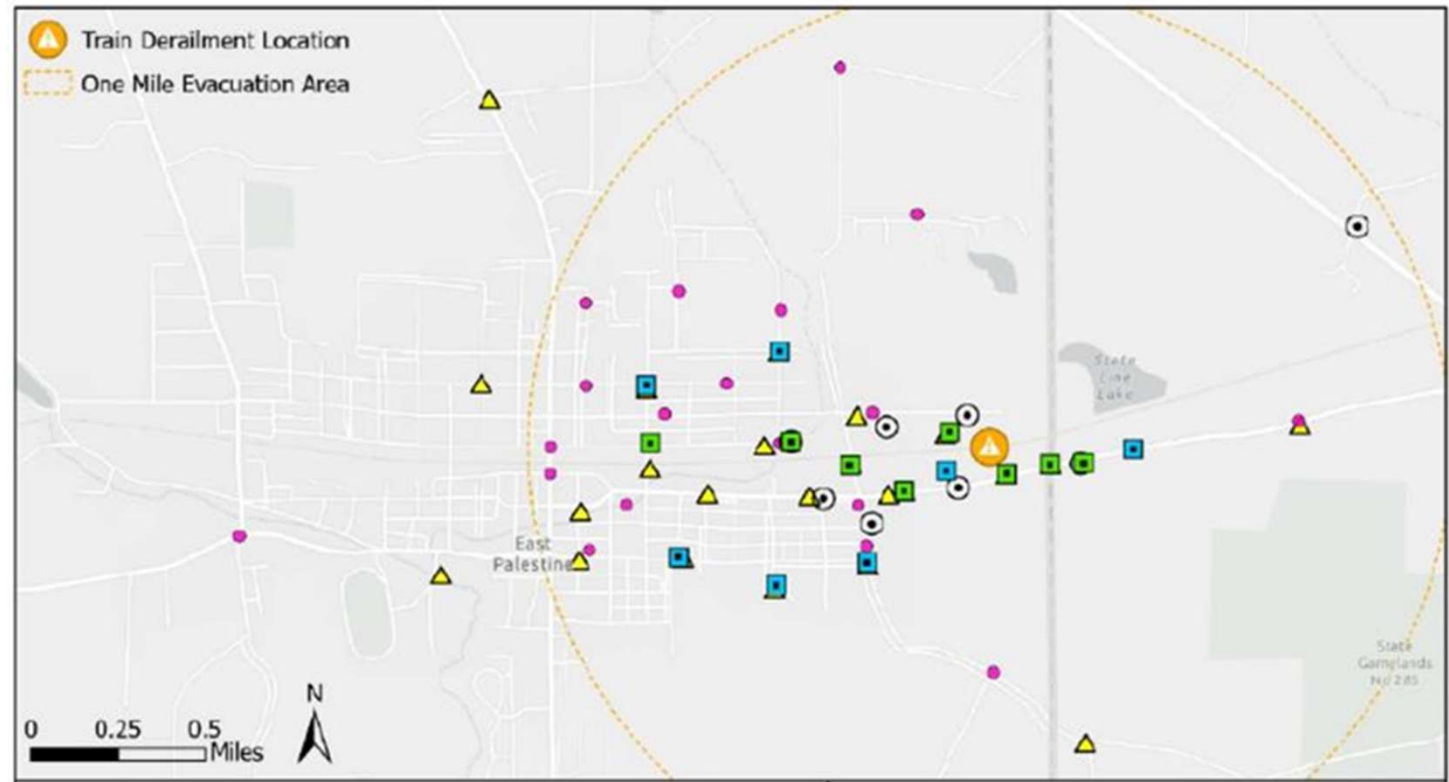
Appendix M - Community Impact Mitigation Plan

Appendix N - Schedule

Response Organization



Community Air Monitoring and Sampling



Community Air Monitoring & Sampling Program

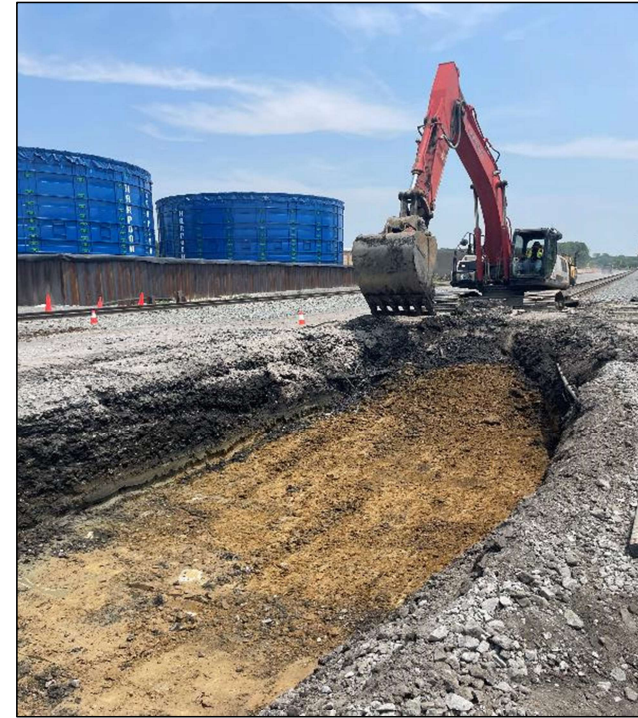
- **Multi-layered monitoring and sampling approach**
- **Monitoring**
 - Conducted by EPA & NS for over 250 days
 - Over 115 million discrete measurements have been collected
 - Over 600 structures screened in February/March
 - Photo-ionization Detector Study
- **Sampling**
 - Over 18,000 samples collected
 - SUMMA canisters, badges, sorbent tubes
 - Tentatively Identified Compounds
 - TAGA/PTR-MS
- **Analysis**
 - Identified primary contaminants of concern



Monitoring & sampling for the primary contaminants of concern (vinyl chloride, n-butyl acrylate) have not been detected at sustained levels of concern in the community for the duration of the response.

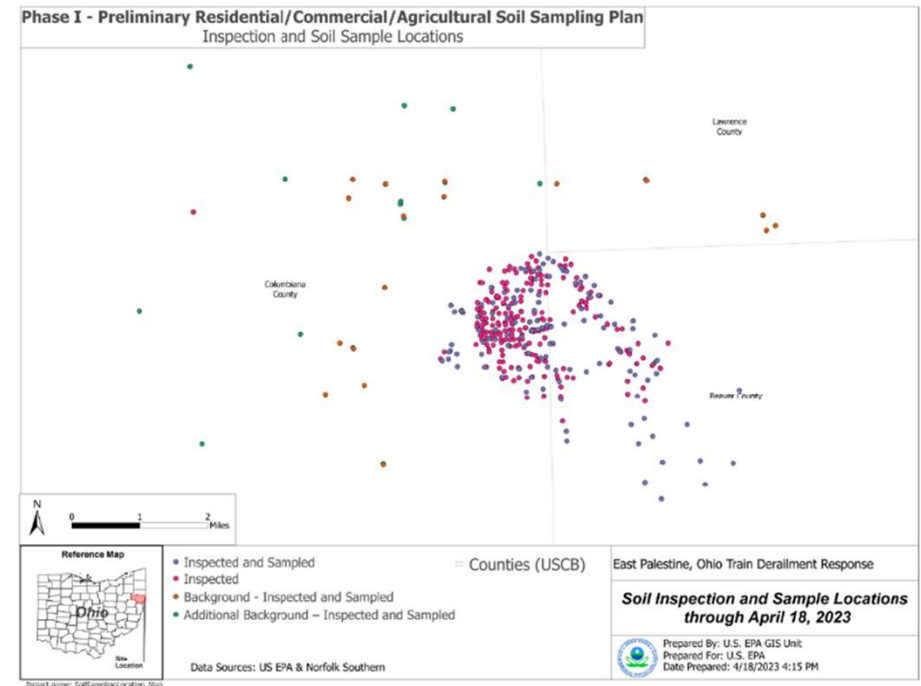
On-Site Soil Removal

- Main line completed on June 26
- Ditches, pits, CSAs completed on October 30
- Excavation bottom & side walls cleared to groundwater standards
- Support area sampling underway



Phase 1 Residential/Commercial/Agricultural Soil Sampling - Comparison Study

- Evaluate the area of interest against U.S. background conditions (select PAHs, Dioxins)
- Compare shallow surface soil to deeper surface soil
- Results
 - Results consistent with typical background conditions
 - A few outliers associate with public right-of-way (roadside)



Phase 1 (completed April 14)
- inspected 359 locations -
sampled 146 locations

Site and Community Safety

- Site wide HASP
 - Close to 1-million person hours without serious incident
- OSHA in Unified Command since February
- Comprehensive safety audit conducted
 - OSHA, EPA ERT, 3rd party construction/traffic safety consultants
 - Implemented all recommendations



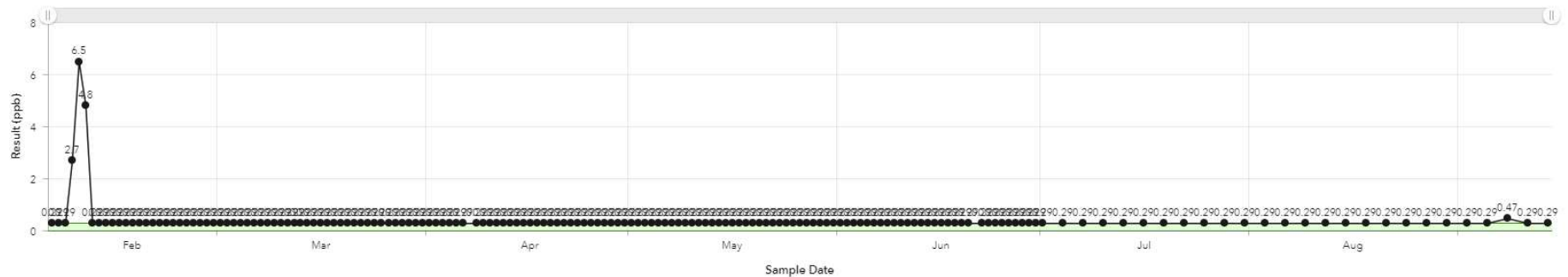
Creek Assessment & Cleanup

East Palestine Surface Water Sampling



W001 - Leslie Run at Jimtown

Vinyl Chloride



Points that fall within the green area are at or below the method detection limit (0.29) and are considered non-detects. Some of the samples for 2/16 and background samples from 2/19 show elevated readings, likely a result of cross contamination either in the field or lab.

Intro Vinyl Chloride Butyl Acrylate 2-ethylhexyl Acrylate Benzene 2-butoxyethanol Polypropylene Glycol Dipropylene Glycol Diethylene Glycol Methyl acrylate **Source: Ohio EPA**

Public Health and Drinking Water



Unified Command - Public Health Advisory Unit

- EPA convenes state, federal and local health officials regularly to keep lines of communication open w/ UC

Municipal Water Sampling

- Lead by Ohio EPA
- Weekly sampling of East Palestine drinking water

Potable Water Sampling

- Lead by CCHD in Ohio
- 900+ private well samples (to date)
- No impacts to private wells to date



Community Involvement

- Welcome Center
 - > 1,200 calls, > 1,000 visitors
- Public open houses (February/March)
- Public information sessions
 - Topic based community meetings
 - Recorded and posted
- Community partners engagement
 - Over 40 public events
 - Bi-weekly newsletters / content
 - In the moment videos
 - Leads on community-based events