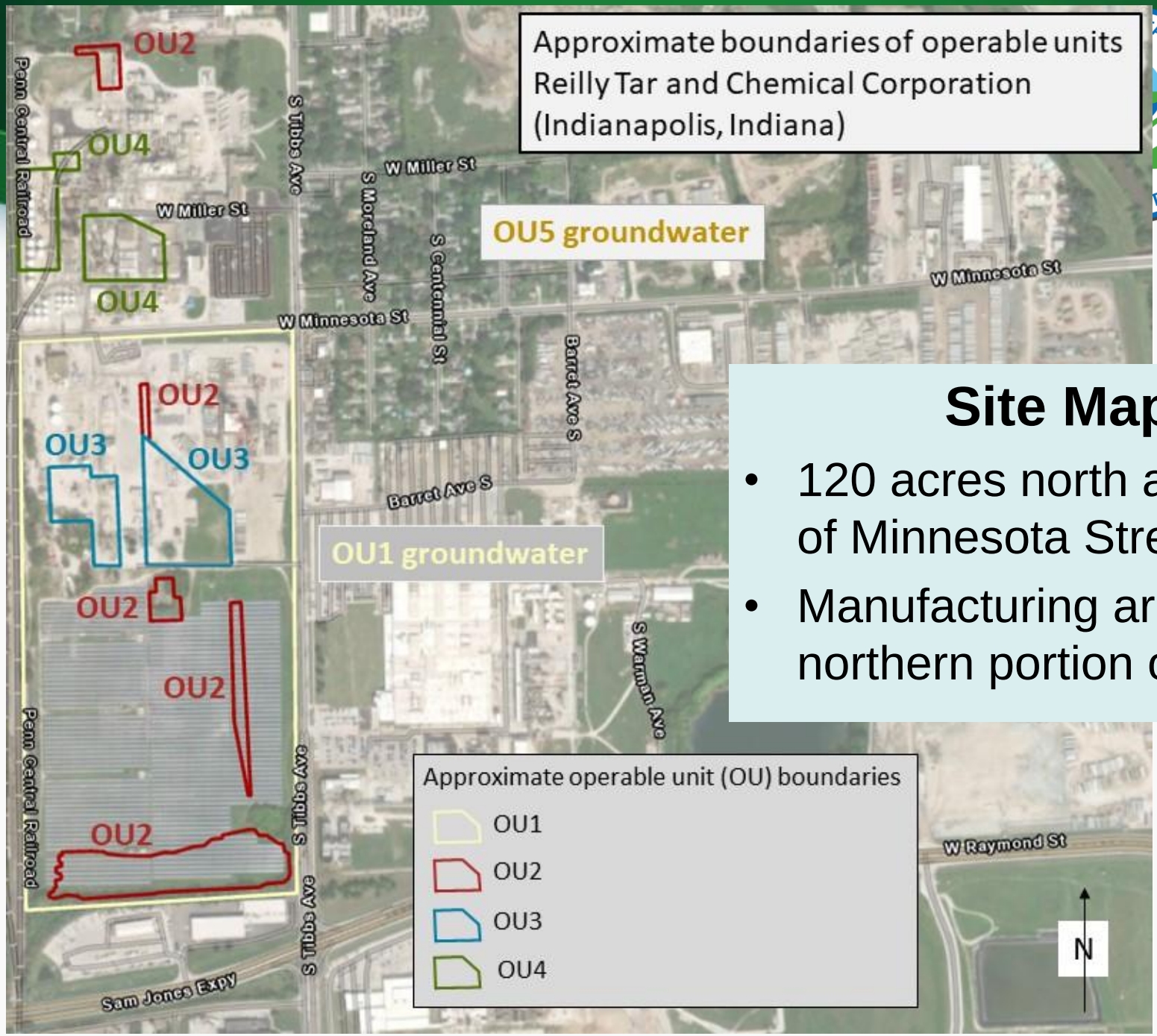
Remedial Design

(Groundwater Cleanup Plan)

Update

Reilly Tar Superfund Site

May 2025



Site Map

- 120 acres north and south of Minnesota Street
- Manufacturing area on northern portion of site

Site History

- Wood preserving – 1920s to 1972
- Specialty Chemical – 1940s to 2024
- Solar farm - 2014

2014 solar farm redevelopment – 36,000 panels, 10.8 MW of electricity

Republic Creosoting Company Plant (now Reilly Tar) - 1934

Site Investigation

- 1987 – present
- EPA/IDEM oversight
- Multiple phases
- Multiple cleanup decisions
- Site remediation ongoing since 1994

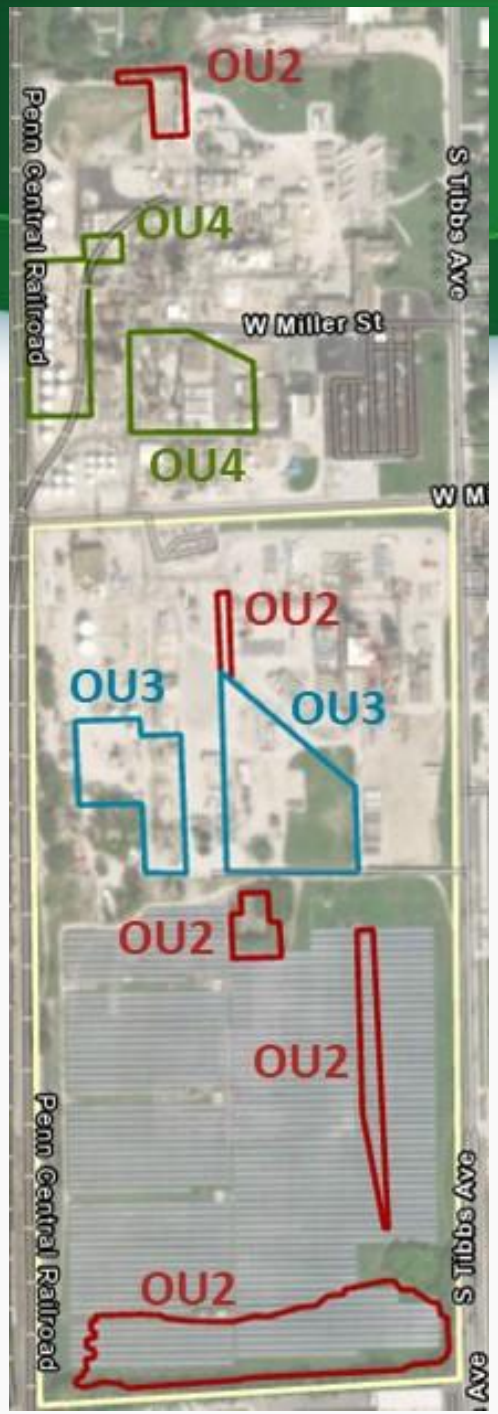
Site Cleanup Remedies

OU1: On-Site Groundwater

Groundwater Pumping since 1994 (eastern property boundary)

OU2: On-Site Source Areas

Soil Excavation, Thermal Treatment, Solidification, and Protective Covers



Site Cleanup Remedies

OU3: On-Site Source Area

- Kickback Area: Protective cover consisting of 12-inch thick gravel or 6-inch thick vegetated topsoil

Site Cleanup Remedies

OU4: On-Site Source Area

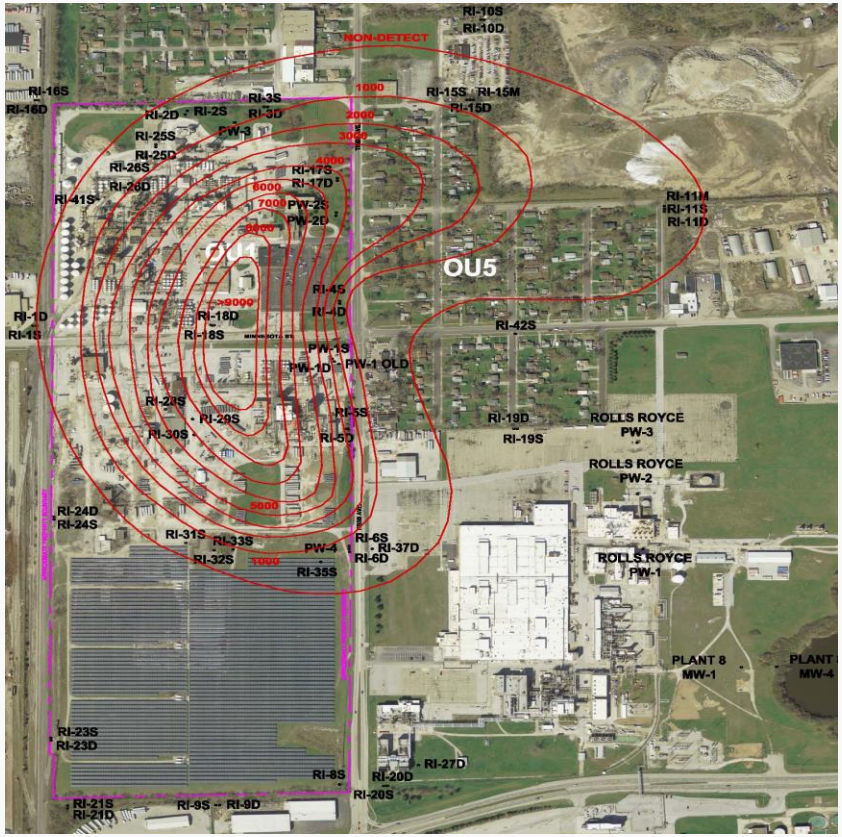
Soil vapor extraction and protective covers in three areas (gravel or concrete)

OU5: Off-Site Groundwater

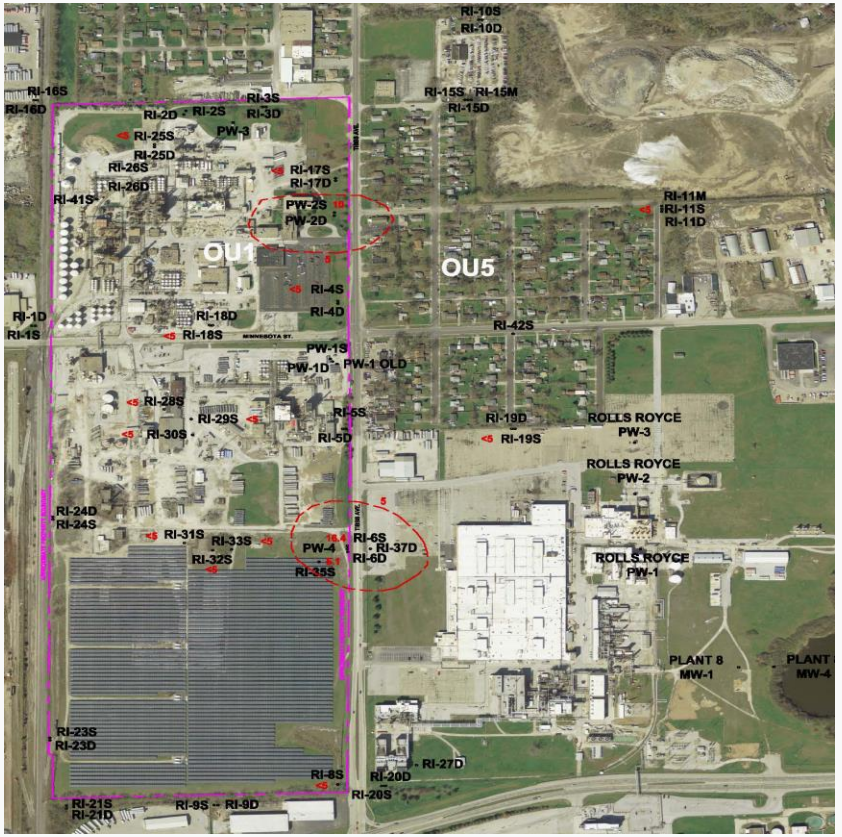
Monitored Natural Attenuation since 1994

Update on Groundwater Cleanup

Benzene 1991



Benzene 2020



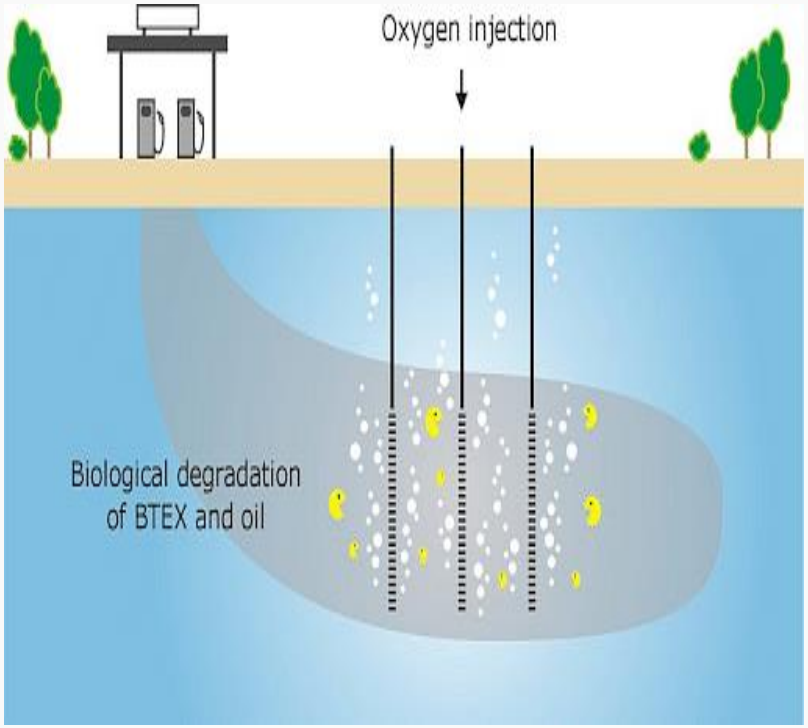
Who is paying for site work?

- Site owner, currently 1500 S Tibbs LLC
- Formerly Reilly Tar & Chemical, Reilly Industries, Vertellus and Aurorium
- Multiple site consent decrees (CDs)
- 2024 - Most recent consent decree for all remaining site activity with 1500 S Tibbs LLC

2021 EPA (OU1)
Change in Groundwater Cleanup
(Record of Decision Amendment)

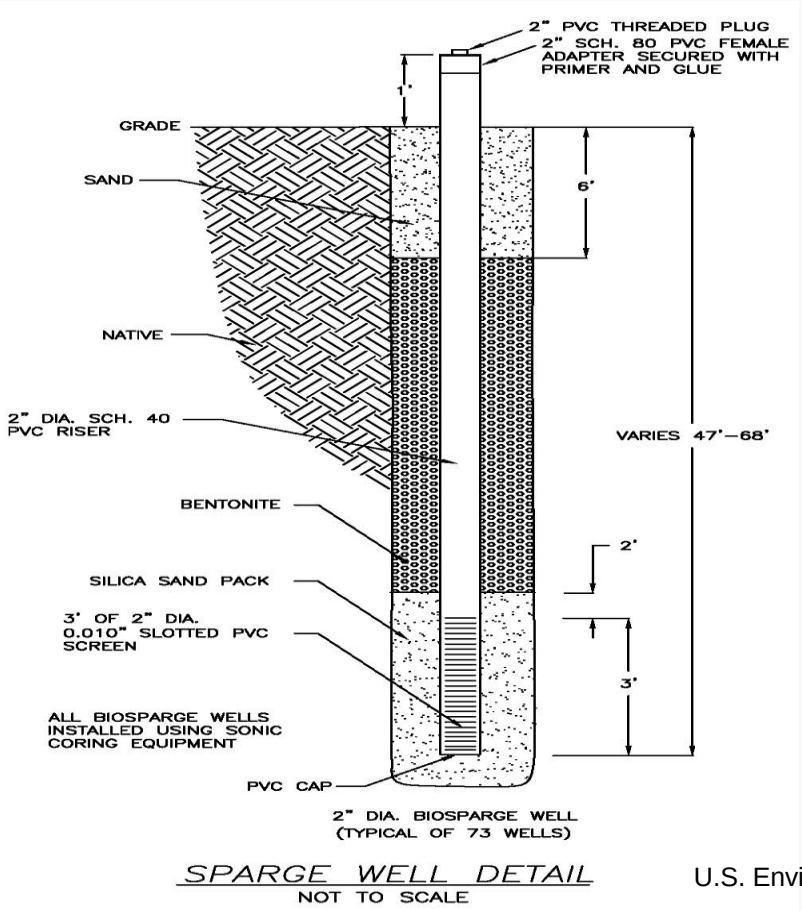
- Changed cleanup **from groundwater extraction to air sparging** *(injecting oxygen into groundwater to accelerate breakdown of contamination)*
- EPA held meeting & received public comments
- Responded to public comments in responsiveness summary

Air Sparging



- Injects oxygen into contaminated groundwater
- Accelerates microbial breakdown of contamination

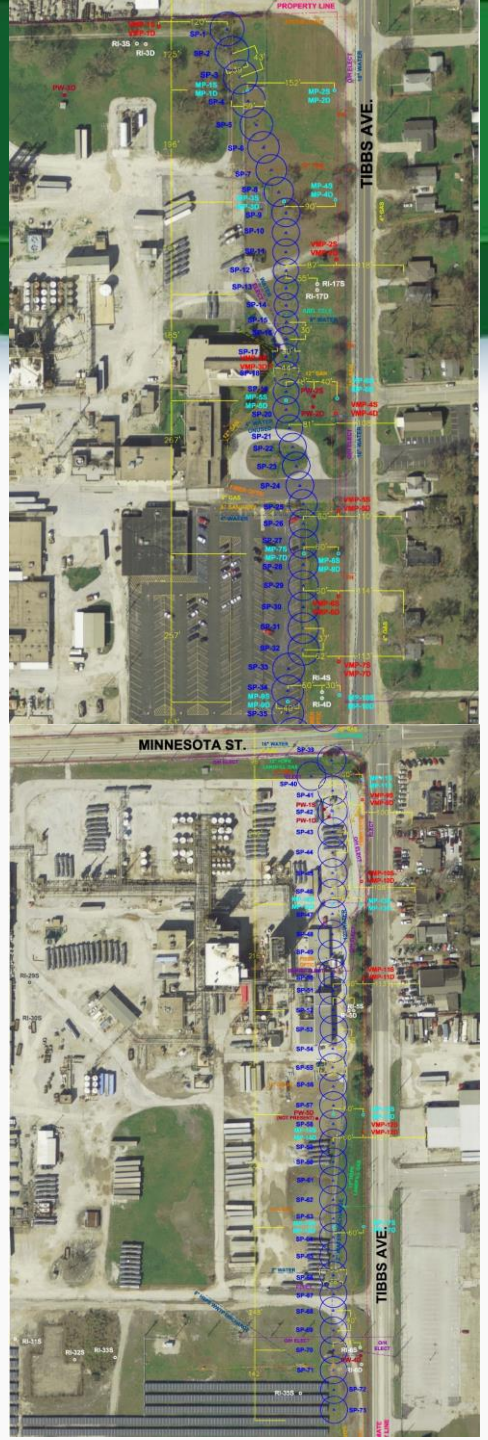
Sparge Well Construction



- Similar to monitoring well
- Oxygen injected at bottom of well through well screen

Oak Park Property

Maywood Property



On-Site Sparge Well Installation

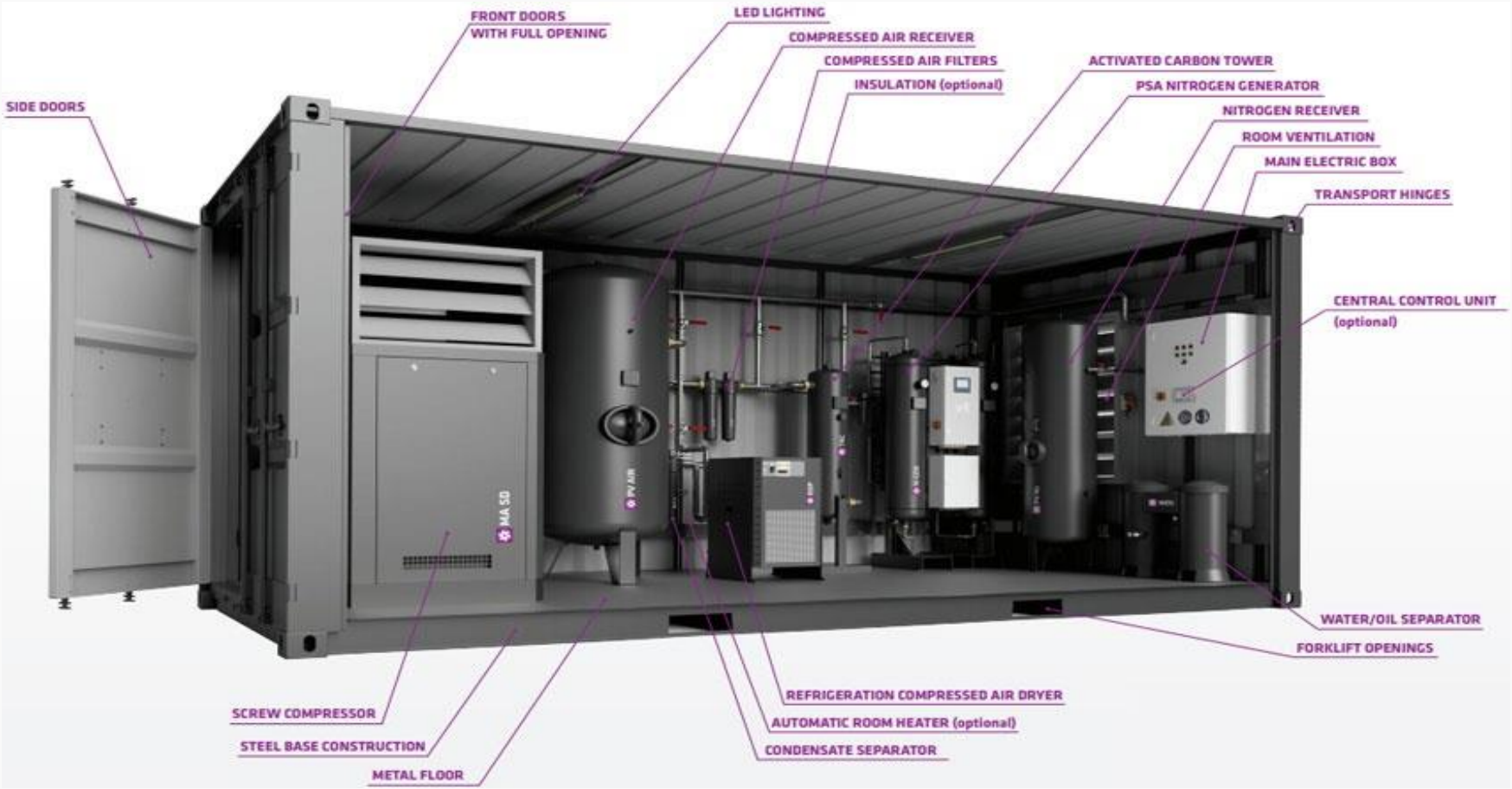
- 73 new sparge wells *(dark blue)*
- 43 new groundwater monitoring points onsite *(light blue)*
- 12 new monitoring wells offsite
- 24 new soil gas monitoring points *(red)*

How Sparge Wells are Installed

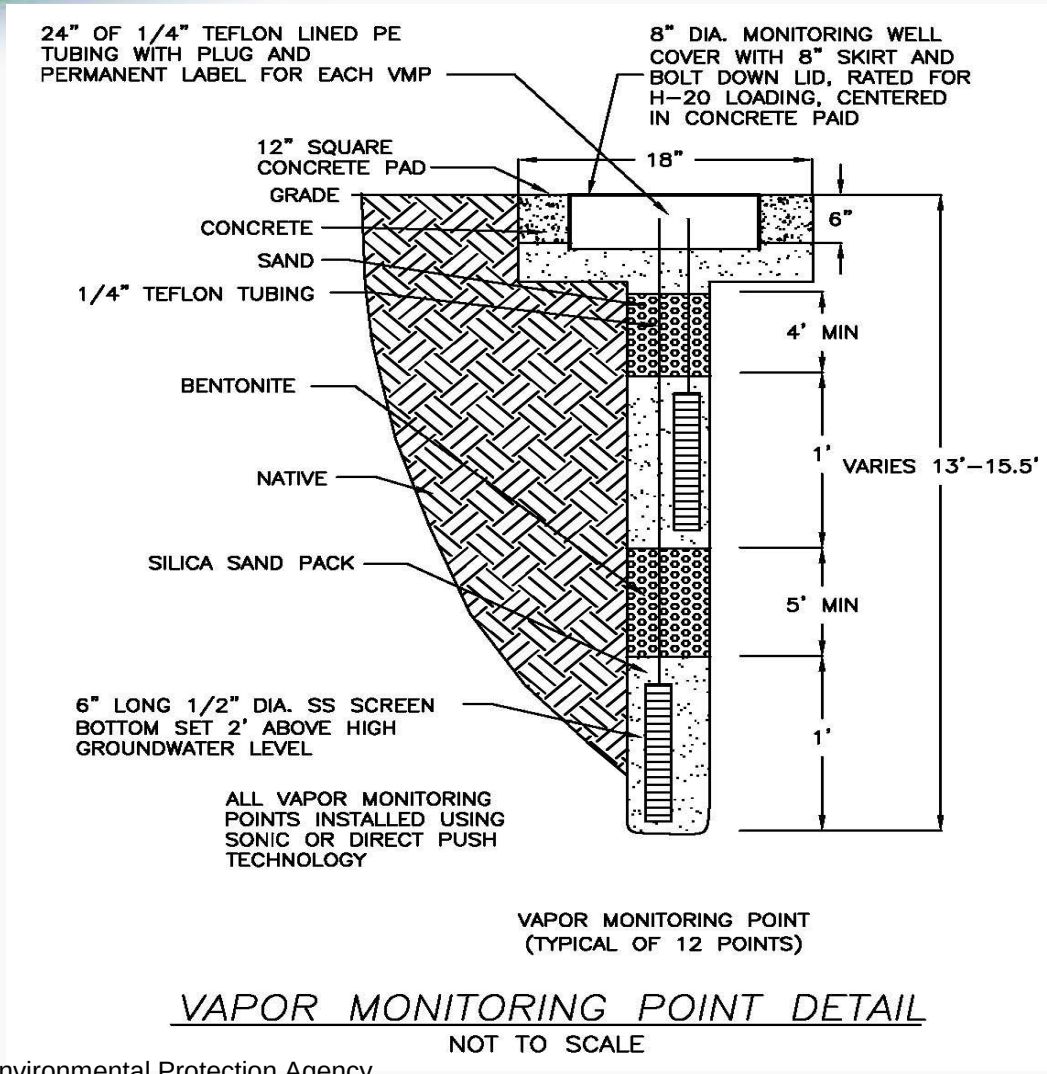
- Installed by a licensed sonic well driller and overseen by certified geologist
- Underground geology shows where to place well screen

Compressed Air Injection

Compressor Container

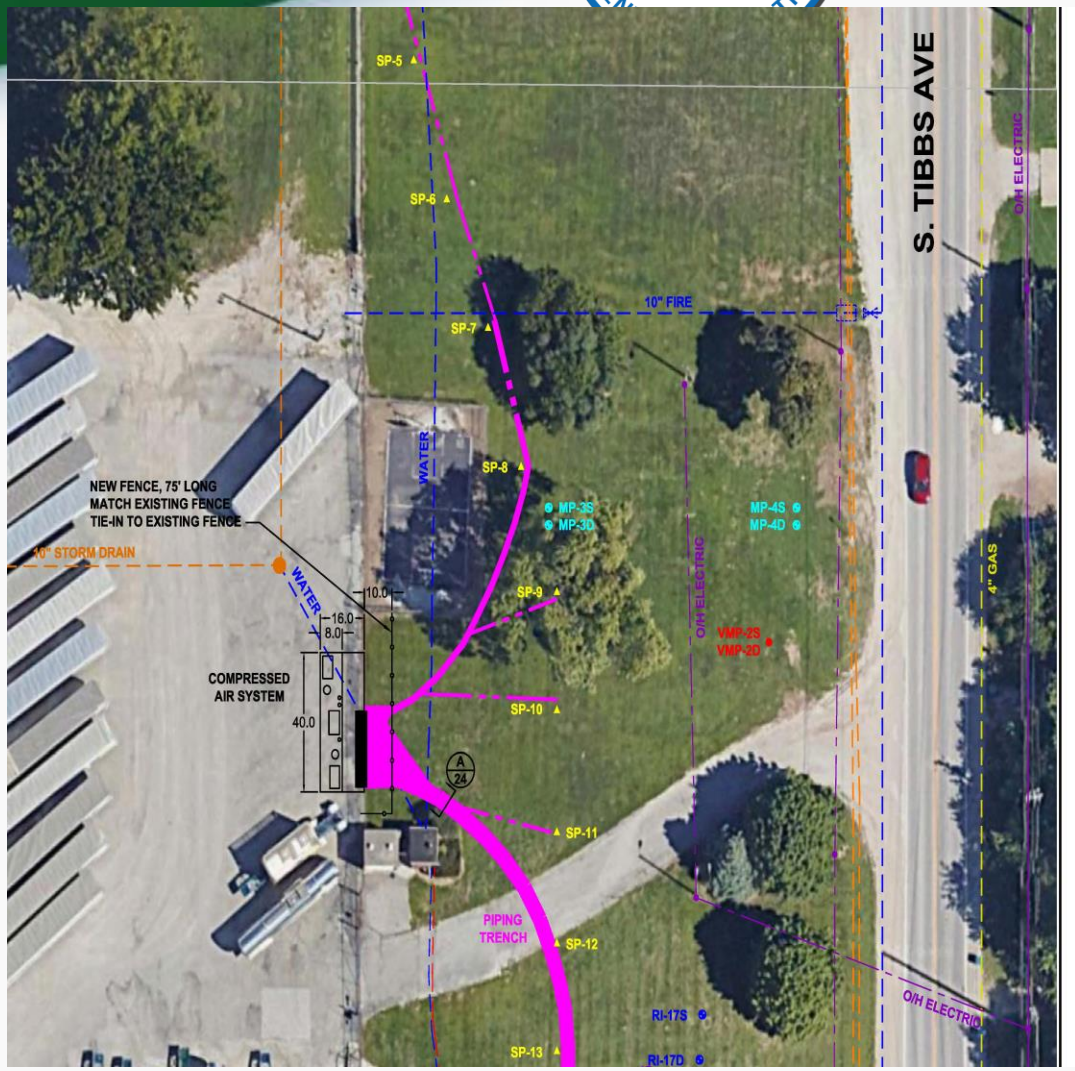


Vapor Monitoring Points



Post-Construction Appearance

- Sparge wells will be buried
- Groundwater monitoring wells & vapor monitoring points will be within flush mount road boxes set in concrete pads
- Two cargo containers for each compressed air system north and south of Minnesota Street
- Perimeter site fencing and signage will remain as-is



Ongoing Sparge System – Monitoring:

- Compressor operational information
- Sparge flow rates and pressures
- Groundwater levels
- Dissolved oxygen levels

- Groundwater sample collection from monitoring wells
- Soil gas sample collection from vapor monitoring points

Schedule

May 2025 – EPA to approve Remedial Design

Summer 2025

- Access Permitting
- New Electrical Service Planning
- Bidding and Awarding the Work

Fall 2025

- Drilling – Groundwater Wells, Vapor Monitoring Points
- Baseline Groundwater and Soil Gas Sampling
- Electrical Service Installation

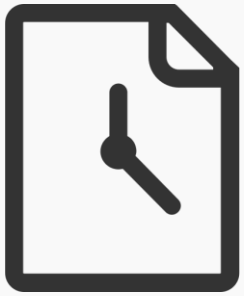
Winter 2026

- Drilling – Biosparge Wells
- Baseline Groundwater and Soil Gas Sampling
- Receive, Install, and Test Compressed Air Systems
- Trenching and Plumbing to Biosparge Wells

Spring 2026

- Startup Biosparge System and Commence Shake-Down Period

Sparging Testing Shakedown



- Ongoing adjustments to sparge system to achieve design objectives
- Monitoring to ensure no off-site impacts from sparging
- Groundwater monitoring to track progress
- Up to one year to achieve sparge objectives
- Existing groundwater extraction system operational until sparge objectives are achieved
- Ongoing system operation and maintenance monitoring until cleanup standards are met

Community Engagement

- Fact sheets
  - Next one scheduled this summer before construction starts
- EPA meetings to communicate progress
- Attending local events to share information

Questions?

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