



Hazardous Sites Cleanup Act (HSCA) Response Virtual Public Hearing

Mazzaro-McKees Rocks Landfill Site

McKees Rocks Road

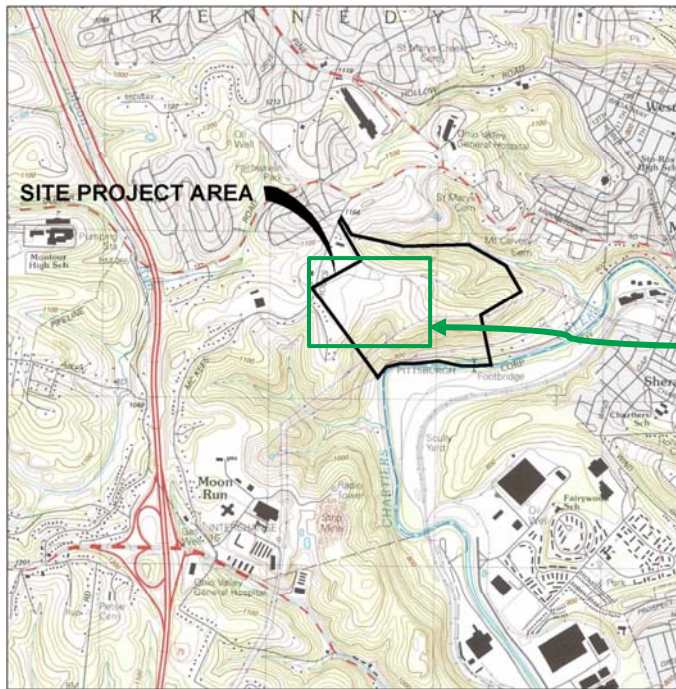
Kennedy Township, Allegheny County

April 6, 2021

Tom Wolf, Governor

Patrick McDonnell, Secretary

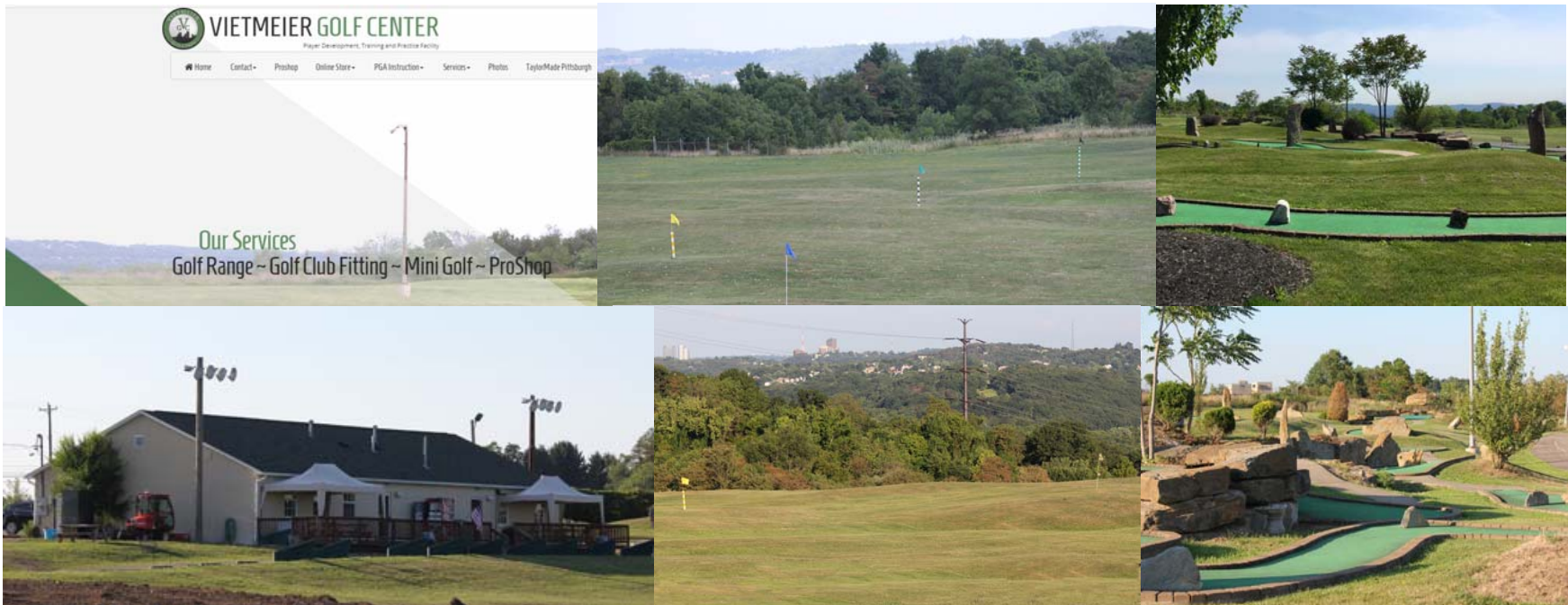
Mazzaro-McKees Rocks Landfill



Site Property Boundary and Project Work Area:
McKees Rocks Road, Kennedy Twp., Allegheny County

Aerial Photo 2018

Mazzaro-McKees Rocks Landfill



Vietmeier Golf Center:

Current Operations from Vietmeier Golf Center Website

Mazzaro-McKees Rocks Landfill



Aerial Photo 2018:
Approximate Limits of Buried Waste and Vietmeier Golf Center Layout

Mazzaro-McKees Rocks Landfill

Prior Site History and Remediation Work

Site History

- **Pre-1940s:** Surface & deep coal mining
- **1940s – 1972:** Disposal in previously mined areas (Pre-Solid Waste Management Act)
- **1980s:** PA DEP and US EPA conducted initial assessments of the Site
- **1980s – 2005:** PA DEP conducts various studies that include wetlands, soil and water testing
- **2005 – 2006:** PA DEP's contractor performed a Remedial Investigation (RI); in 2006, PA DEP's contractor removed exposed waste and drums from parts of the Site
- **2012 – 2014:** PA DEP's contractor performed a Supplemental Remedial Investigation (SRI) focused on landfill gas (LFG); in 2014, installed 28 vents in two phases
- **2016 – 2017:** Pilot test conducted (of vents in active mode)

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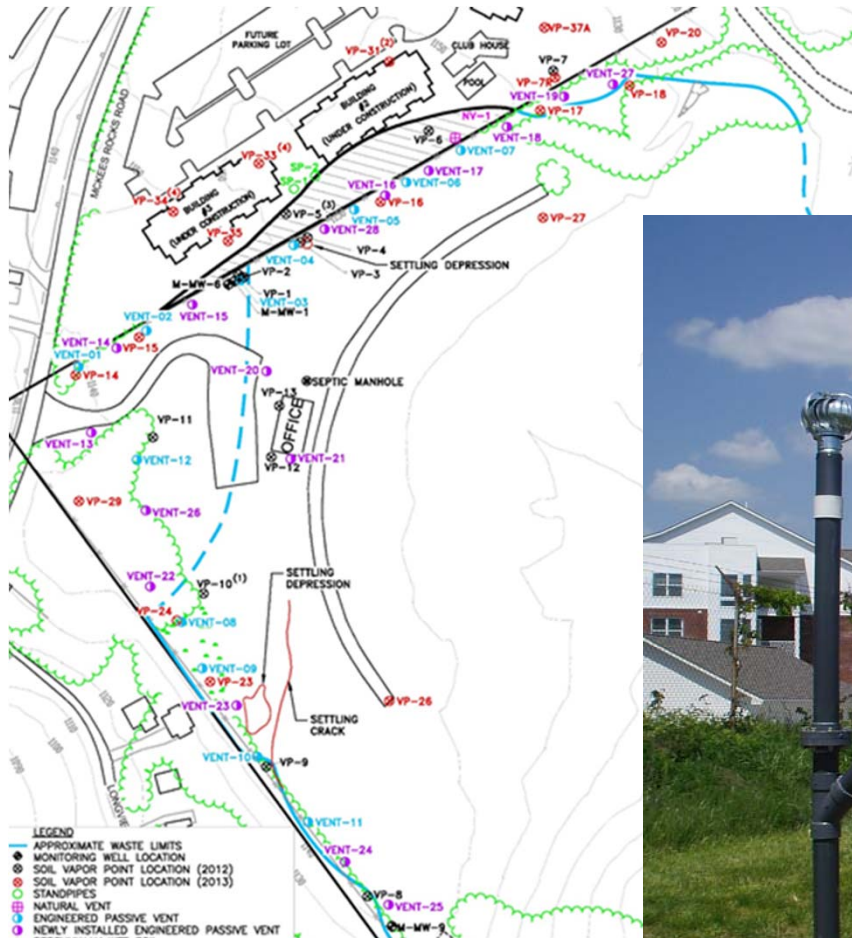
Prior Site History and Remediation Work

Response Action

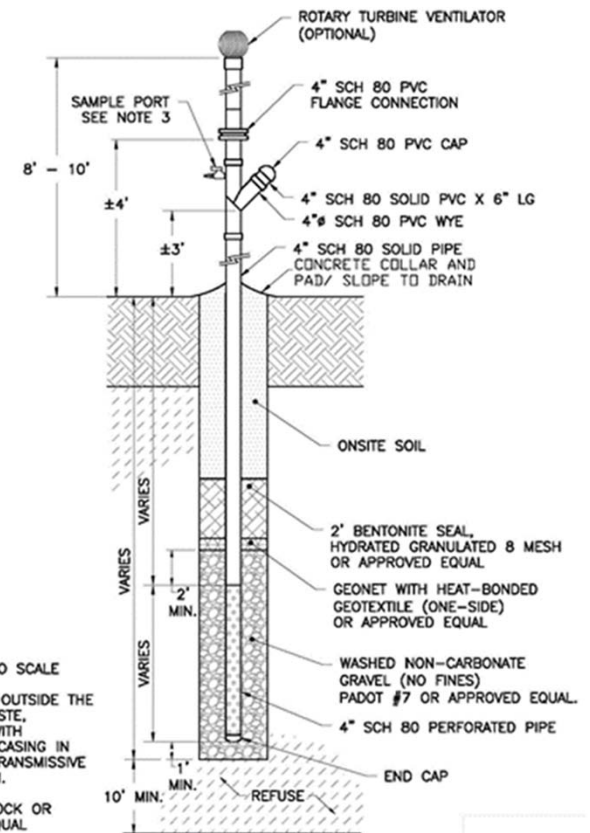
- **2018:** PA DEP authored analysis of alternatives and proposed HSCA response
- **2019:** PA DEP's contractor performed pre-design investigation for gas collection trenches
- **2014 - 2020:** Allegheny County Health Department (ACHD) approved designs;
Kennedy Township officials updated on work
- **2020 – 2021:** PA DEP's contractor completed final design and ~1,000-ft trench installation;
- **Present:** Landfill gas (LFG) collection trench performance monitoring

Mazzaro-McKees Rocks Landfill

Passive Vents Installed (Two Phases – 2014)



Typical Passive Vent



NOTES:

1. DETAIL NOT TO SCALE
2. IF INSTALLED OUTSIDE THE LIMITS OF WASTE, CONSTRUCT WITH PERFORATED CASING IN PERMEABLE/TRANSMISSIVE SOIL STRATUM.
3. 1/2" PVC LABCOCK OR APPROVED EQUAL

Mazzaro-McKees Rocks Landfill

PADEP Analysis of Alternatives and Proposed Response Document – Basis for Remedy Selection

- Analyzed Alternatives
 - No. 1 – **No Action** - Maintain Existing Vent System with Continued Screening
 - No. 2 - **Enhanced Gas Venting** - Existing Vent System with Active Recovery of landfill gas (LFG)
 - No. 3 – **Passive Trench Venting System** - Horizontal Trench with Passive Venting
 - No. 4 – **Semi-Active Trench Venting System** - Modify Alternative 3 with Semi-Active Micro-Turbines
 - No. 5 - **Active Trench System** - Modify Alternative 3 with Active Extraction
 - No. 6 - **Impermeable Barriers** - Slurry Wall Barrier / Limited Waste Removal with Passive Vertical Vents
- **Alternative No. 3 Selected**

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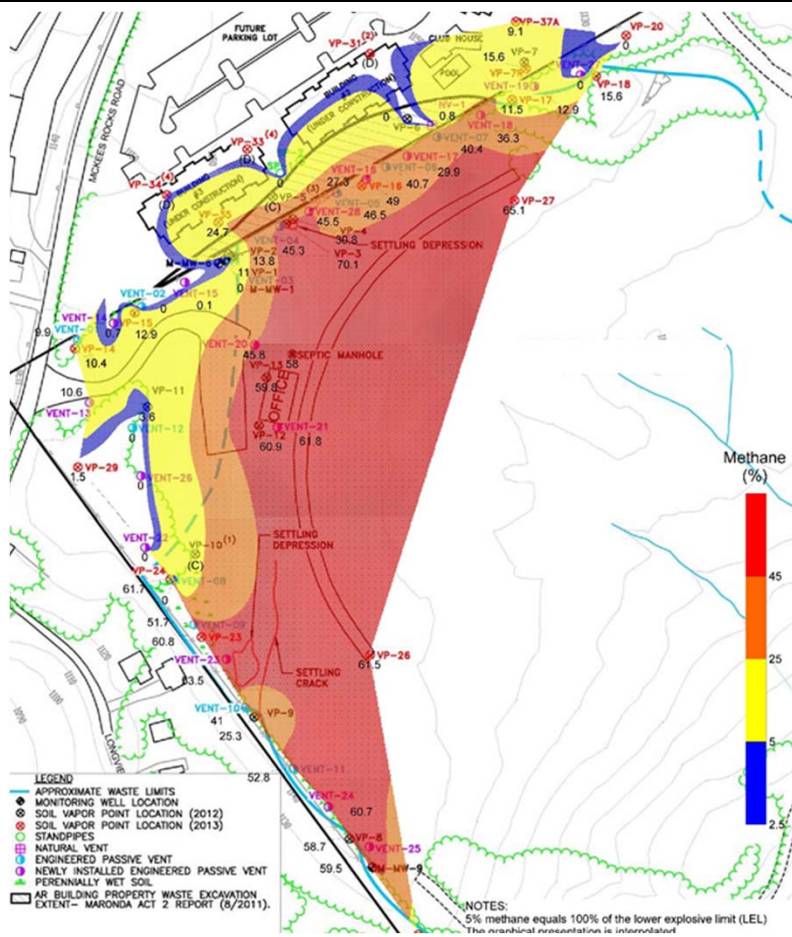
Final Design – Landfill Gas Collection Trenches

- Objectives
 - The overall objective is to prevent the offsite lateral migration of landfill gas (LFG) including methane at designated areas along the northern and western property boundaries, with a goal of fully intercepting LFG to the extent practicable.
 - Achieve the project-specific and defined Applicable or Relevant and Appropriate Requirement (ARAR) as 5% methane (100% of the LEL) as a target compliance criteria.

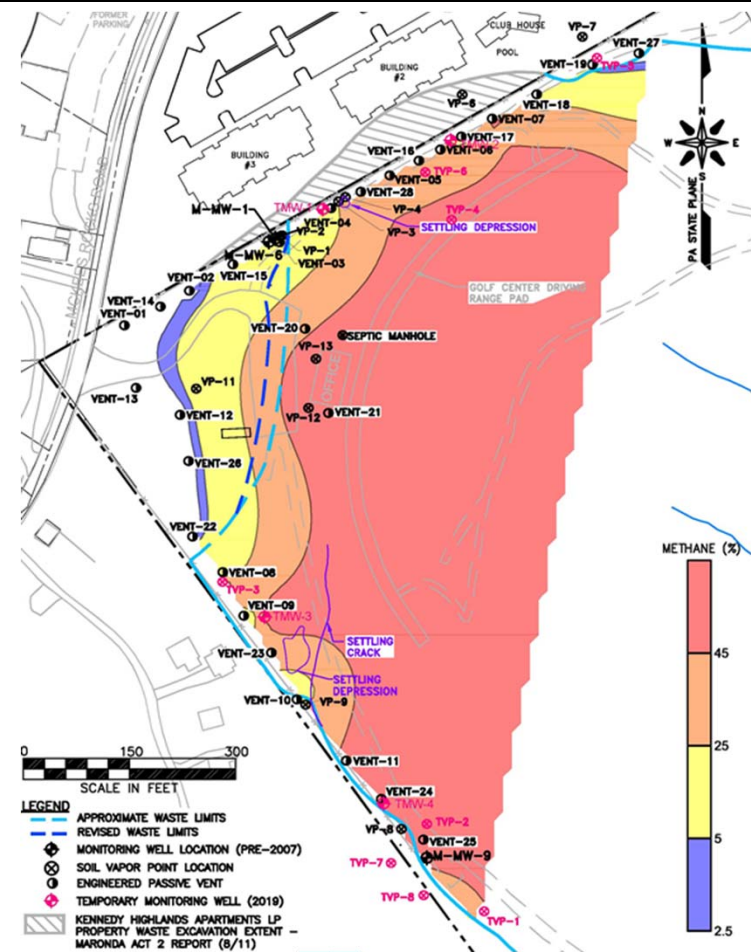
* Lower Explosive Limit (LEL) means the minimum concentration of vapor in air below which propagation of a flame does not occur in the presence of an ignition source (OSHA).

Mazzaro-McKees Rocks Landfill

***Methane Distribution June 2014**



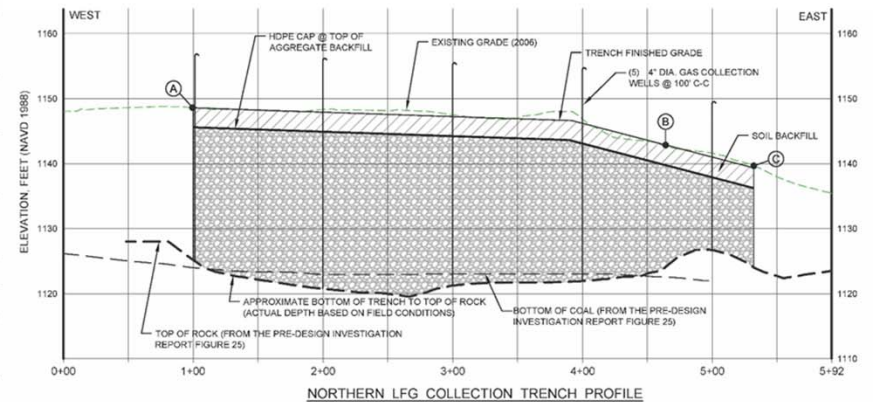
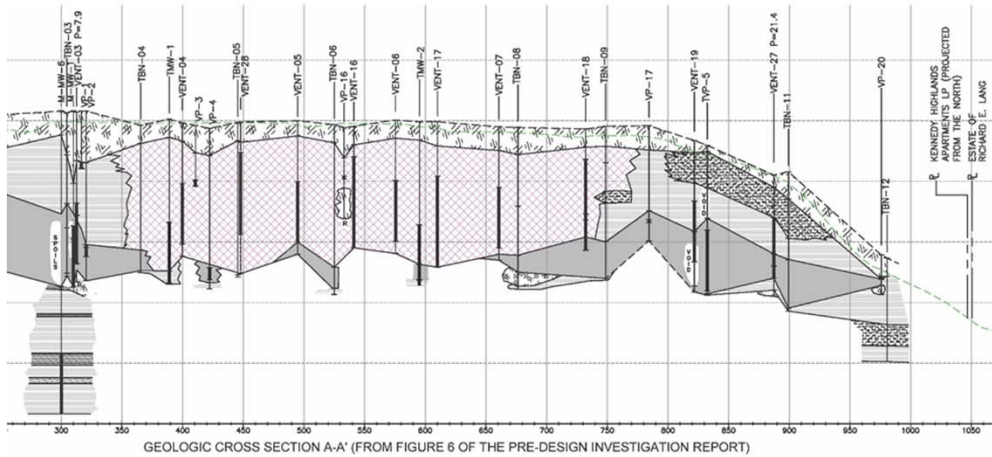
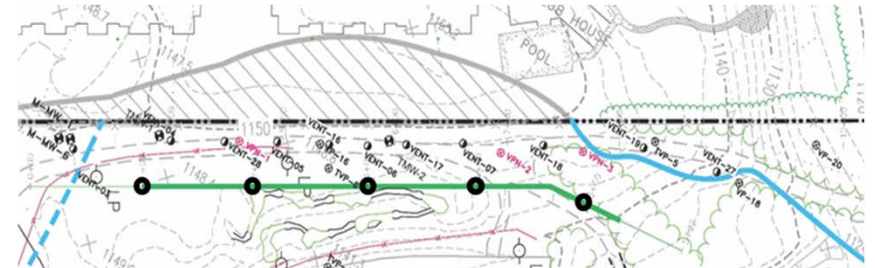
***Methane Distribution August 2019**



**Approximate*

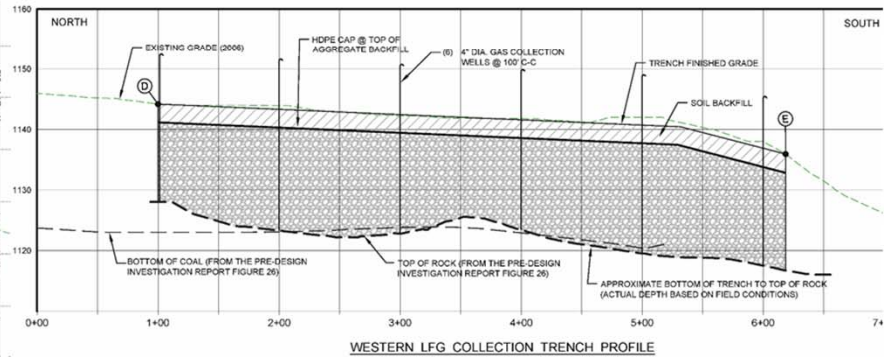
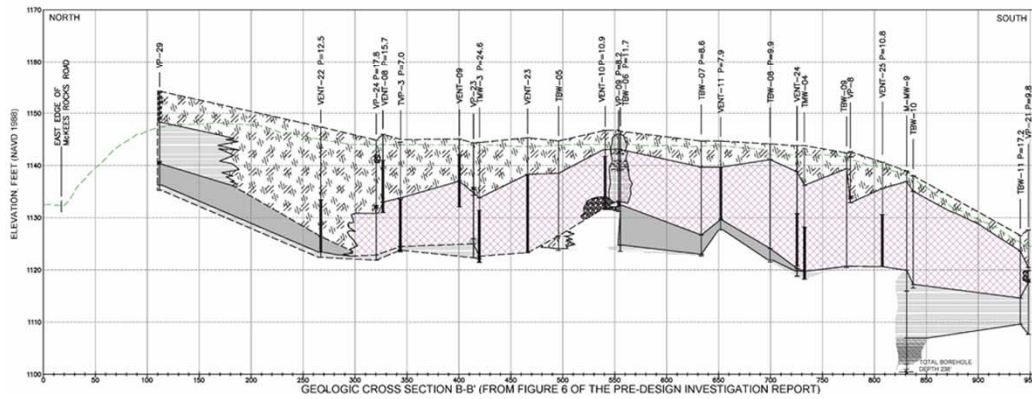
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Northern Landfill Gas Collection Trench Plan and Profiles



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Western Landfill Gas Collection Trench Plan and Profiles



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Landfill Gas Collection Trench Installation Photos



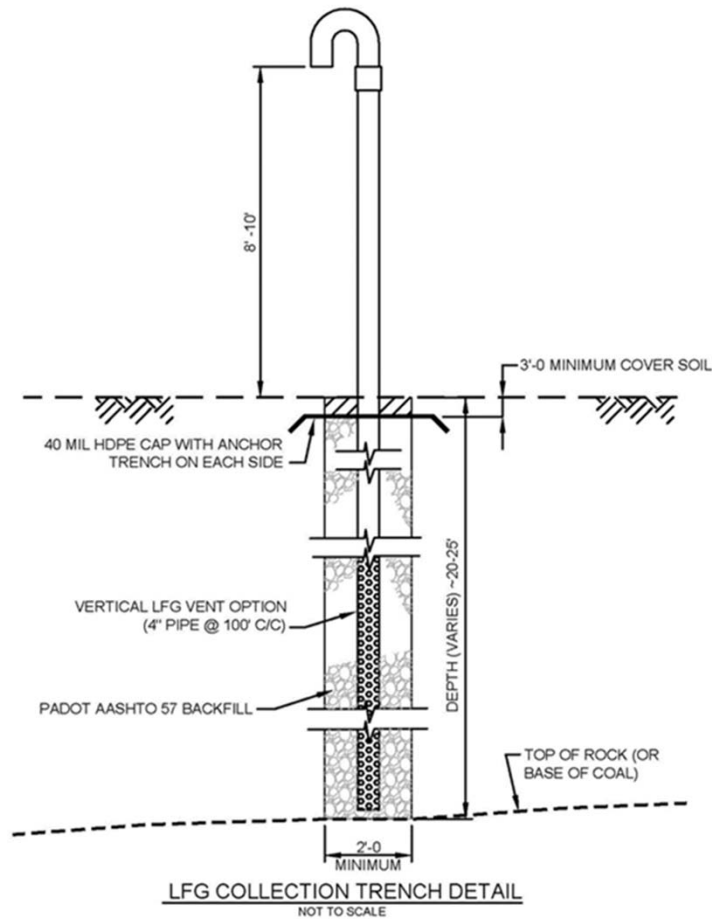
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Landfill Gas Collection Trench Installation Photos



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Landfill Gas Collection Trenches - Completed March 2021



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West LFG Gas Collection Trench

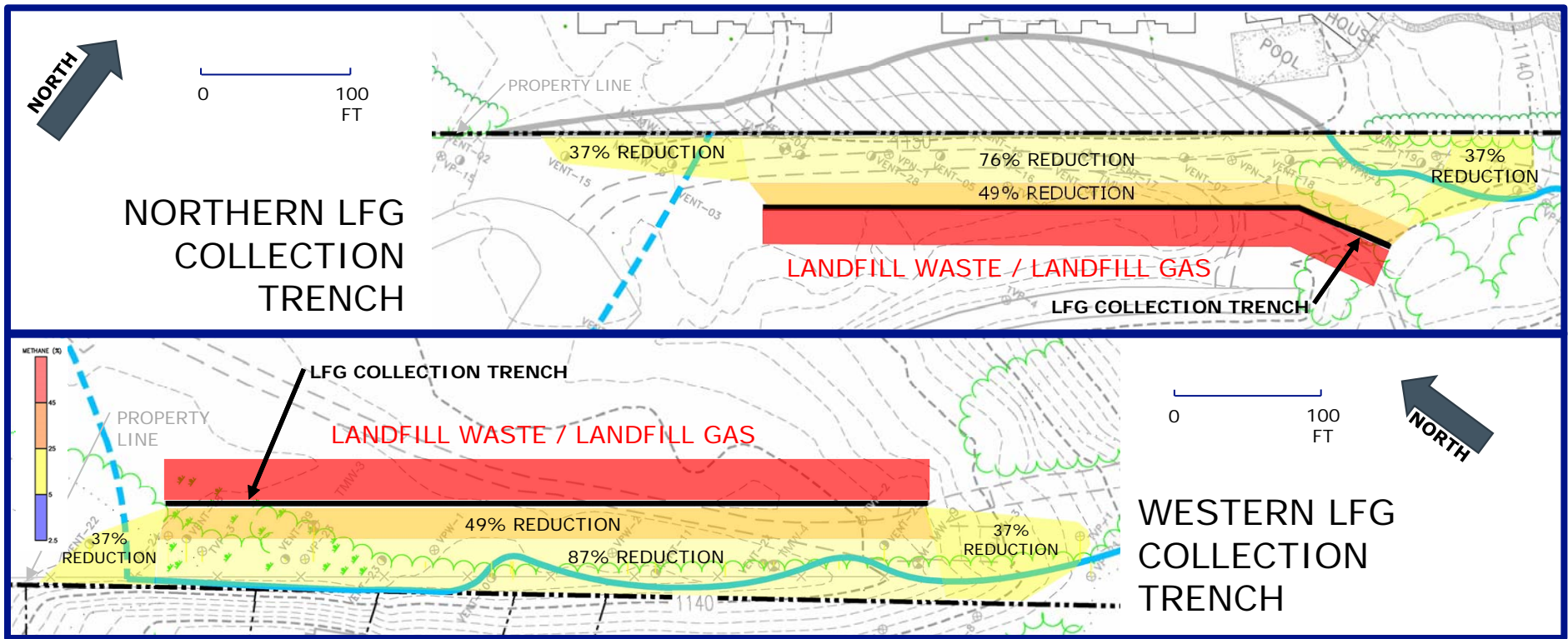


North LFG Collection Trench



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Reduction of Methane Gas by Collection Trenches



*Preliminary post-installation methane monitoring results (field meter)
Five (5) monitoring events completed between February 19 and March 24, 2021
Methane concentrations expected to vary over time while equilibrium is attained*



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McKees Rocks Road
Kennedy Township, Allegheny County
April 6, 2021

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