

Pipeline Project Sampling Plan:

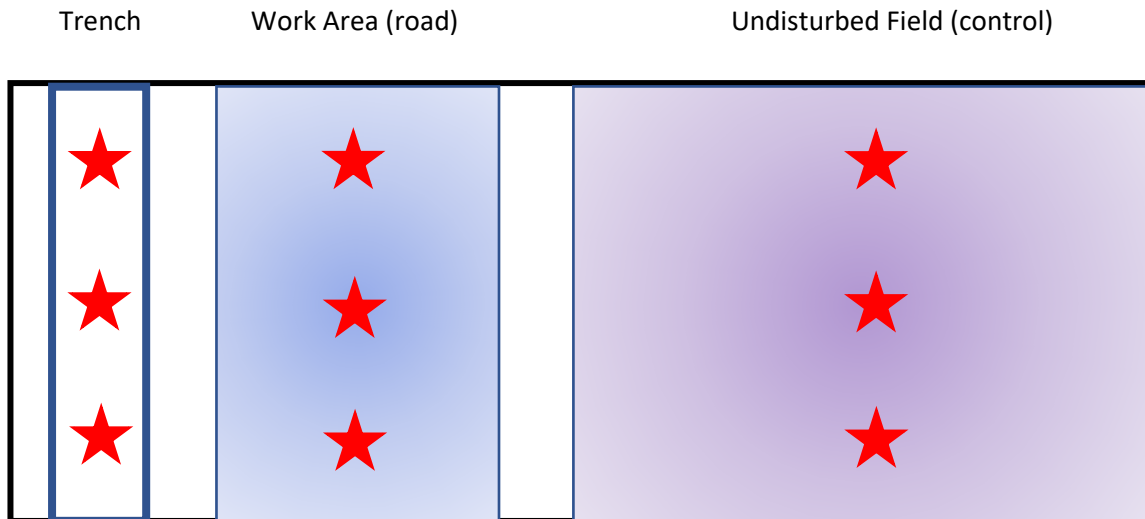
Farm criteria:

- Required
 - One of Rover, Utopia, or Nexus pipelines installed on farm
 - Allowing sampling team on farm 1-2 times per year
 - Field with pipeline has grain crops in 2020 and 2021 (hayed forage fields will be considered, but not pastured fields)
- Preferred
 - Yield maps for past several years available
 - Good documentation of history of field since pipeline installation (any remediation methods, aerial imagery, cropping history, etc.)

Areas to be sampled:

- Pipeline trench
- Work area (road) on right-of-way
- Undisturbed, adjacent field (control area)

Field Sampling Schematic



★ = major sampling location; on each farm, there will be a total of 9 soil composites taken in total.

Soil and crop measurements to be taken:

- Physical
 - Bulk density
 - Penetration resistance

- Aggregate stability
 - Texture
- Biological
 - Active Carbon
 - Protein
 - Respiration
- Chemical
 - pH
 - CEC
 - Nutrient analysis
- Crop yield
- Aerial data (year 2)

For more information on this research project, please contact Theresa Brehm at brehm.112@osu.edu or (614) 706-2037, or Steve Culman at culman.2@osu.edu