



Design of Bedrock Gas Extraction System to Address Off-Site Gas Migration

LFG was detected in commercial structures adjacent to an active landfill. EIL diagnosed the operational problem and designed a perimeter gas extraction system.

Our team's practical experience and thorough understanding of LFG extraction operations helped resolve a serious health and safety risk with a practical, cost effective solution.

Client: Confidential
Location: Midwestern US

EIL's investigation of an active landfill found:

- Significant, highly exothermic activity deep within the landfill that prohibited aggressive LFG management, and
- LFG migration into commercial structures adjacent to the landfill.

EIL solved the LFG migration problem by designing a perimeter gas extraction system outside of the waste footprint:

- 168 LFG extraction wells were drilled diagonally to intercept bedrock joints.
- Bedrock joints and fractures were used as gas collection conduits.
- Allowed effective, low-vacuum gas capture without aggravating the situation in the waste mass.

EIL's experienced landfill gas team combines:

- practical, hands-on experience,
- a strong focus on Health & Safety,
- extensive knowledge of gas system equipment (extraction wells, flares, pumps, compressors, etc.)
- deep knowledge of the engineering principles that make gas systems work, and
- extensive geologic and hydrogeologic experience.

