

Seale Lane Landfill, Surrey

Our Services

- Desk study
- Site investigation
- Gas monitoring
- Part 2a risk assessment
- Assessment of landfill gas regime
- Recommendations for remediation



Part 2a risk assessment and landfill gas regime investigation

Recent gas monitoring at the perimeter of an inert waste landfill adjoining the Seale Lane landfill, which was closed in 1985, encountered abnormally high levels of methane and carbon dioxide. It was thought likely that the older Seale Lane landfill was the source of the gases and residential properties on the boundary of the site were deemed to be at potential risk from the build-up of landfill gases.

CGL were tasked to undertake a desk study and site investigation to determine the landfill gas regime and associated risk and to establish if the land should be determined as contaminated under Part 2a.

The desk study indicated that infilling at the adjoining landfill was sealing off the quarry cliff face reducing the permeable migration pathway from Seale Landfill.

To determine the gas regime **CGL** undertook monitoring from newly installed wells across the landfill; sampled headspace gases for analysis;

undertook an FID transect gas survey and analysed the organic fibre content of the waste.

Using the Environment Agency gas generation parameters and GasSim, **CGL** estimated the future volume of landfill gas to be generated. The results indicated that the emission rate would be extremely low. This was representative of an old landfill that was not bio-chemically active, but has entered the final phase of the degradation cycle.

The level of risk from landfill gas migration to the residential properties was calculated in accordance with CIRIA 152 and was found to be *unlikely to slight*.

Chemical testing and statistical analysis of the results in line with Part 2a procedures identified that the concentrations of contaminants within the waste materials were unlikely to meet the statutory definition of contaminated land.

Client: Guildford Borough Council