



SLR Consulting

Sludge Retrieval

Value: £10k per annum

October 2014-present

Location: Manchester

CASE STUDY

Bespoke engineering

We were given a challenge to provide an alternative methodology for managing sludges produced on site. In order to remove a layer of floating debris from a tank at a treatment plant, we custom designed, built and manufactured a specialised scraper. Our efforts meant that the material was removed significantly easier and quicker than previous efforts and the client was provided with a more cost-effective solution.

KEY LEARNING POINTS & SUCCESSES:

- Bespoke design of specialist parts.
- Use of innovative technology.

Scope of Services

We were asked by SLR to review the proposed methodology for removing the top layer of floating sludge from an effluent treatment plant on a Network Rail Site which was negatively affecting the on-site treatment process.

Key Features

We designed, built, and manufactured a customised scraper that could be placed over the tanks so that the scum/debris layer could be removed more readily and efficiently.

We ensured that this structure was constructed with enough flexibility to allow for any minor as-built dimension changes on site. The tanks extended to 14m x 24m and were at a height of 4m above ground level.

Constructing the scraper off-site, we delivered, erected and installed on-site, using tower scaffolding along the tank walls. Using our deep lift air mover along with the scraper unit, we were able to remove material, still partially solid, which we then took to a licensed treatment facility off-site. Previously, the best material consistency of removed material was only 10% - during our works it was at 40%.

The construction of this scraper was relatively lightweight allowing manual handling to be



managed by our trained personnel, negating the need to use manual lifting equipment, if it is not readily available.

One side of the tank was not accessible as this was a direct boundary with the railway lines, ensuring the enforcement of careful management within our RAMS.

This demonstrates a solution-focused case study of how we can identify innovative cost effective options to resolve inherent challenges with wastewaters.

"Having used KCP in the past to resolve unorthodox problems on landfill sites I immediately thought of them when presented with the problem of removing floating sludge from storage tanks. I was confident that KCP had the equipment and innovative attitude necessary to come up with a solution and to make it work for us on-site with the minimum of fuss. During the works KCP demonstrated that the scraper mechanism worked and was able to move floating sludge to the off-take point, enabling us to remove more solids from the tanks than had previously been achieved. We look forward to working with KCP again in the future and will keep them in-mind whenever similar unusual challenges present themselves"

Danny Jones Principal Consultant, SLR Consulting



