CASE STUDY

evocra
WATER SOLUTIONS:EVOLVED

PROJECT **Landfill Leachate PFAS Removal**

PRODUCT **Ozofractionative Catalysed Reagent Addition (OCRA) + Polish**

INDUSTRY **Solid Waste Management**

LOCATION **Queensland, Australia**

PROBLEM

The Client was seeking a solution to remove PFAS (Poly- and Per-fluoroalkyl Substances) from leachate at their solid waste resource recovery centre to ensure discharge compliance and approached **Evocra** for a solution, due to the proven success of **Evocra**'s patented Ozofractionative Catalysed Reagent Addition (OCRA) technology in removing PFAS from other complex wastewaters.

SOLUTION

Evocra mobilized its PFAS 1125 containerised OCRA system to the Client's site to conduct field trials, investigating removal of PFAS and co-contaminants from landfill leachate across a range of treatment times and performance conditions.

RESULTS & BENEFITS

A series of 14 trials were conducted to establish the optimal treatment parameters to meet the Client's expectations. The optimised OCRA system followed by a small combined GAC/IX polishing stage achieved the following highlights:

- OCRA system alone reduced PFOS by 99.98% (to <0.0001µg/L), PFOA by 99.69% (to 0.004µg/L), and PFHxS by 98.85% (to 0.023µg/L)
- OCRA + polish reduced Sum of PFAS (TOPA) by 99.20%, to <0.1µg/L
- Following successful completion of the trials, the OCRA system remained on site as an interim water treatment solution, with over 1.4 million litres of PFAS-impacted leachate treated to a level sufficient for offsite disposal. Waste generation from the OCRA system was approximately 18,000 litres, or 1.25% of the inlet volume.

PFAS 1125 WTP onsite

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