NuQuatic

ADVANCED WATER TECHNOLOGIES

Collier County Introduction
July 18, 2024

NuQuatic History and Evolution

- Founded in 2017 to leverage a patented technology focused on nutrient removal from water
- R&D efforts identified passing water through a galvanic cell could cost effectively remove phosphorus to meet TMDL levels and formed the basis for a series of patents.
- In summer 2022, determined a galvanic cell could remove PFAS and pivoted R&D efforts to prove concept, operational conditions requirements, and costs.
- All development work was conducted in a treated wastewater effluent matrix.
- Current IP portfolio contains 61 patents and applications Globally that cover methods, applications, and apparatus
- Resulted in a treatment process that can collect, concentrate, and destroy long and short-chain PFAS to below proposed Risk Based Screening Levels
- Advantage Process is applicable to many use cases as bolt-on technology, (WWTP, RO reject, surface and/or groundwater) or upstream generators

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NuQuatic has designed and constructed full-scale treatment systems

- Piney Point
  - 500 million gallons of water treated
  - Largest wastewater electrolytic array in the world
  - 350 tons of Phosphorus and 300 tons Nitrogen removed
- Lake Apopka
  - 10 MGD
  - 10 Billion gallons of water treated
  - Removed over 65,000 lbs of phosphorus to date
- Lake Okeechobee
  - Capacity of 8.6 million gallons of water per day
  - Commissioned last week

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Galvanic Cell Reactions require NO POWER!

- Proven application for Phosphorus, PFAS, 1,4 - Dioxane, and other emerging contaminants of concern
- Our solution is simple, dependable, scalable, sustainable and lower cost alternative to conventional technologies

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Electrolytic Ammonia Removal

- Largest Electrolytic Ammonia and Nitrogen Removal System in the World.
- Treating 1000 gpm at 250 ppm Ammonia
- Same system would treat 10,000 gpm at 25 ppm Ammonia – 14.4 MGD
- Removes Ammonia to below 0.015ppm

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Lake Okeechobee Phosphorus Removal System

6000 gpm – 8.6 MGD – Phosphorus Removal to less than 50 pp billion.

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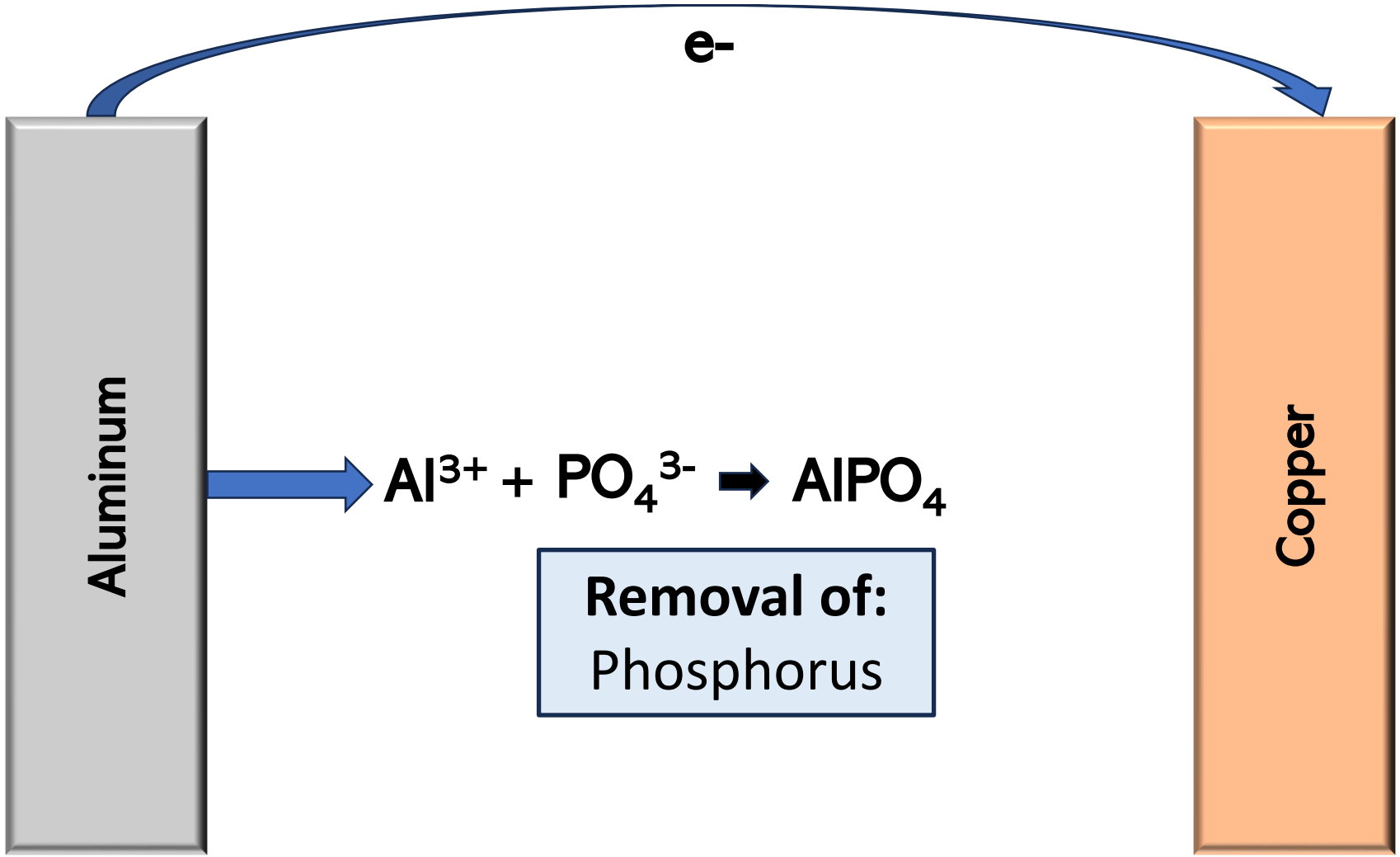
NuQuatic Technology: ADVANTAGE Method



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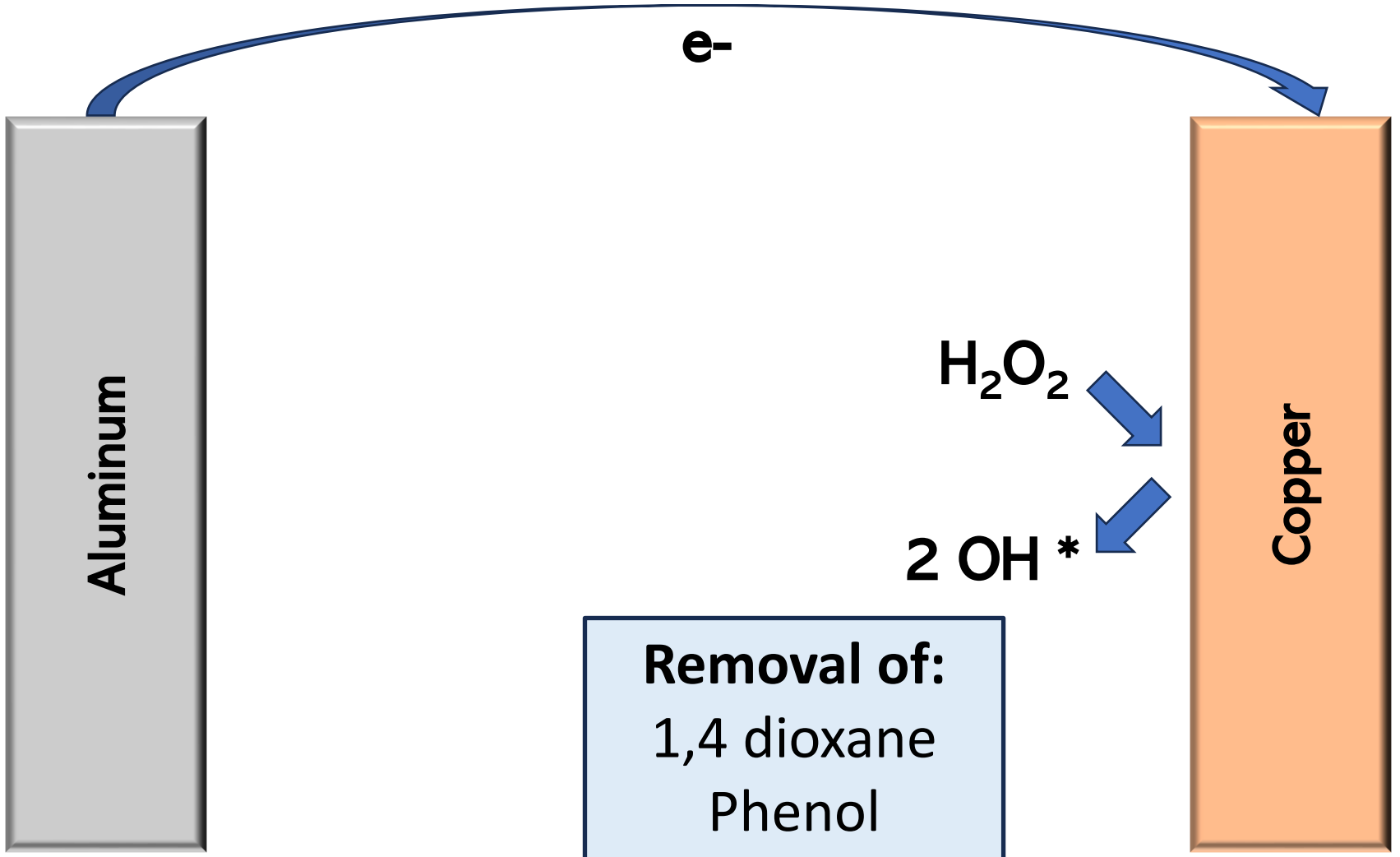

Removal of:
1,4 dioxane
Phenol
Glyphosate

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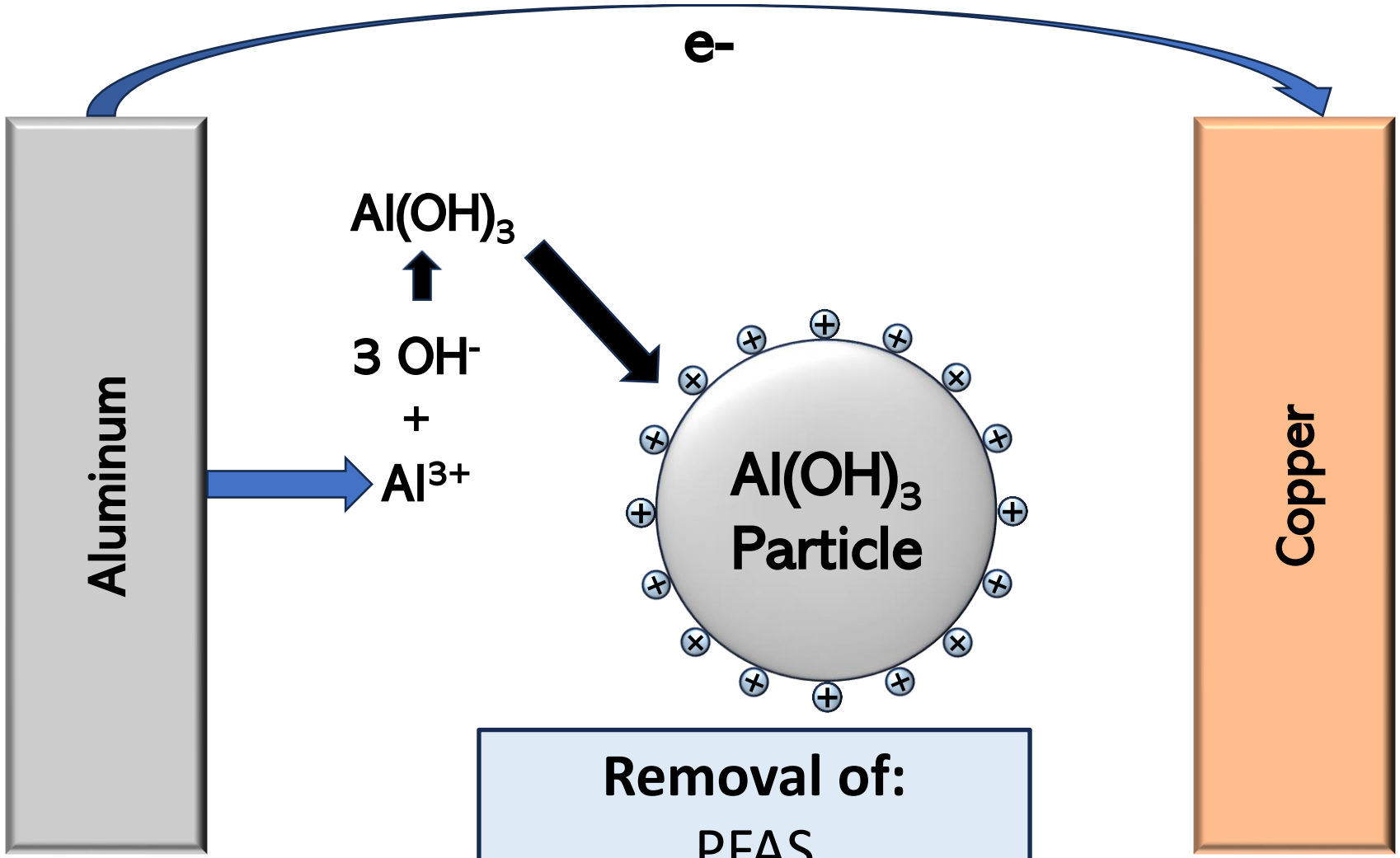

Removal of:
PFAS
Surfactants

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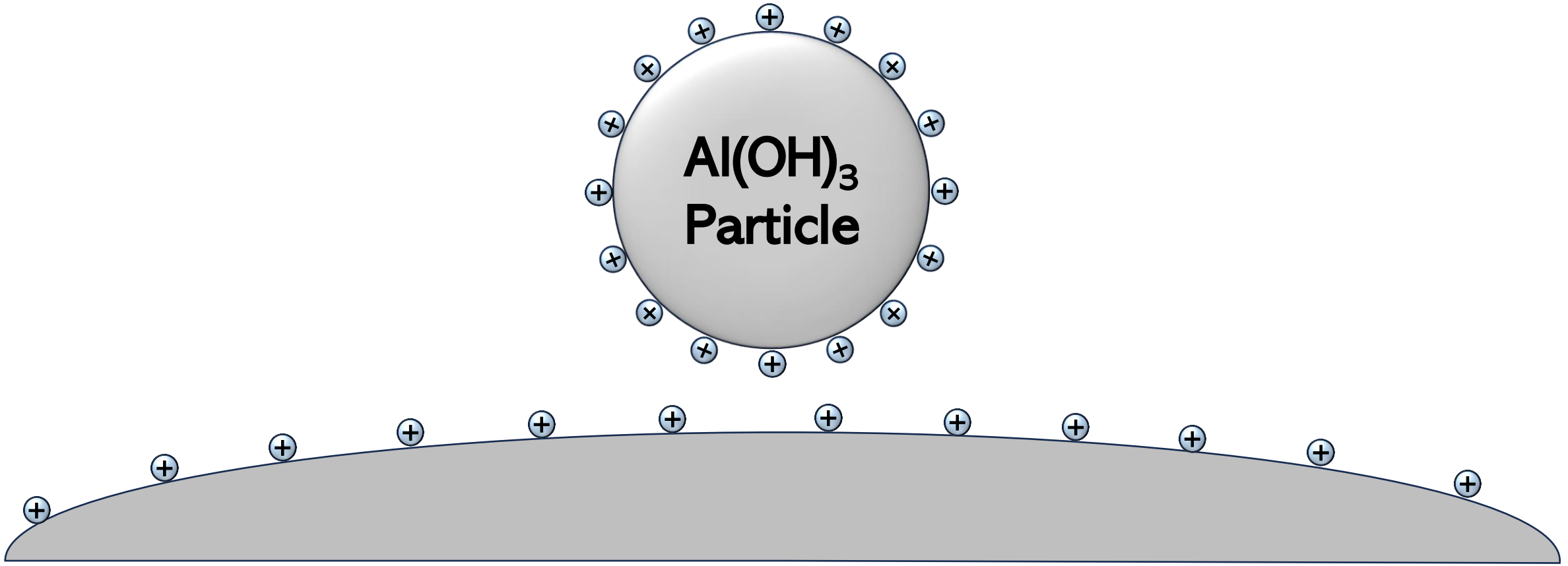
PFAS Collection



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lented Enclosure

“Moving” Forward

Reactor Array with
1 of 5 cores installed

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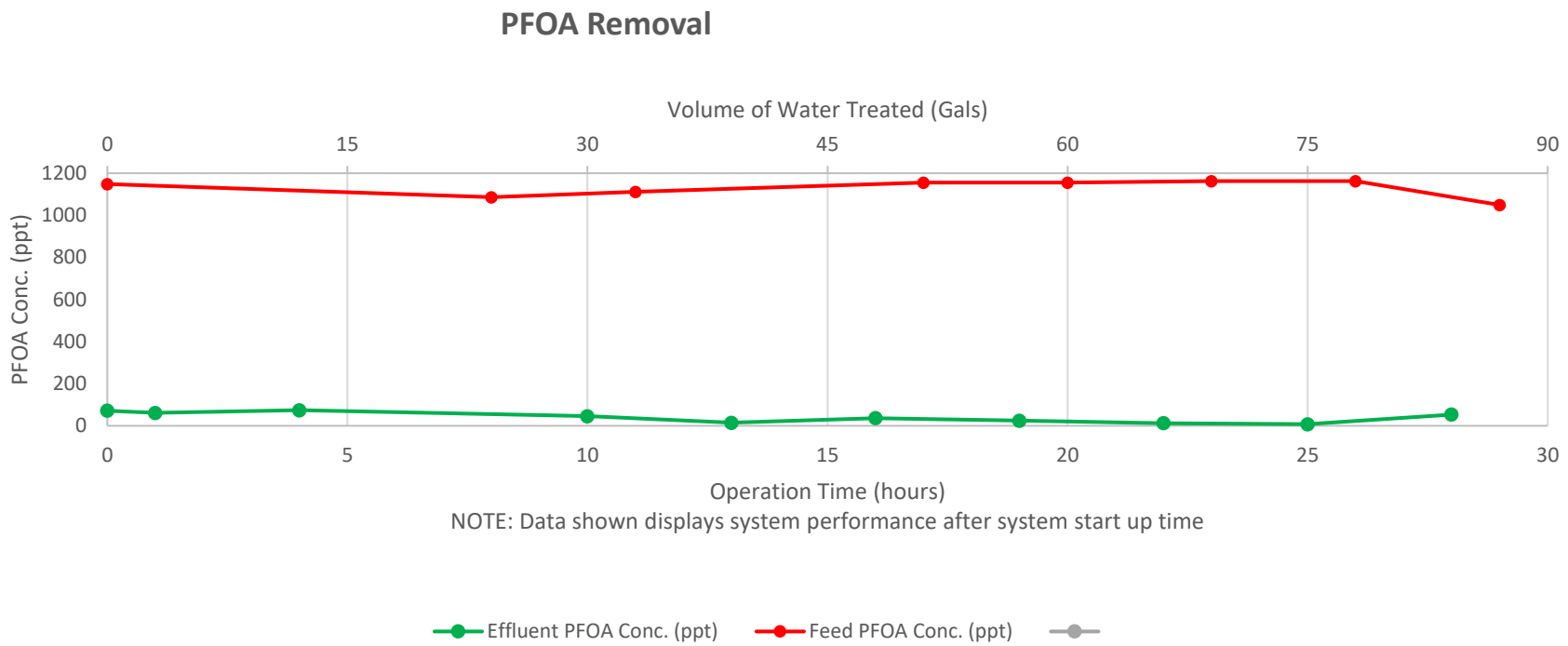
Trailer Under
Construction

Removal Efficiency



- Results from our bench scale reactor have shown 99.3% removal of PFOA after one treatment
- Reduced PFOA concentration from 1050-1250 ppt to below 8 ppt

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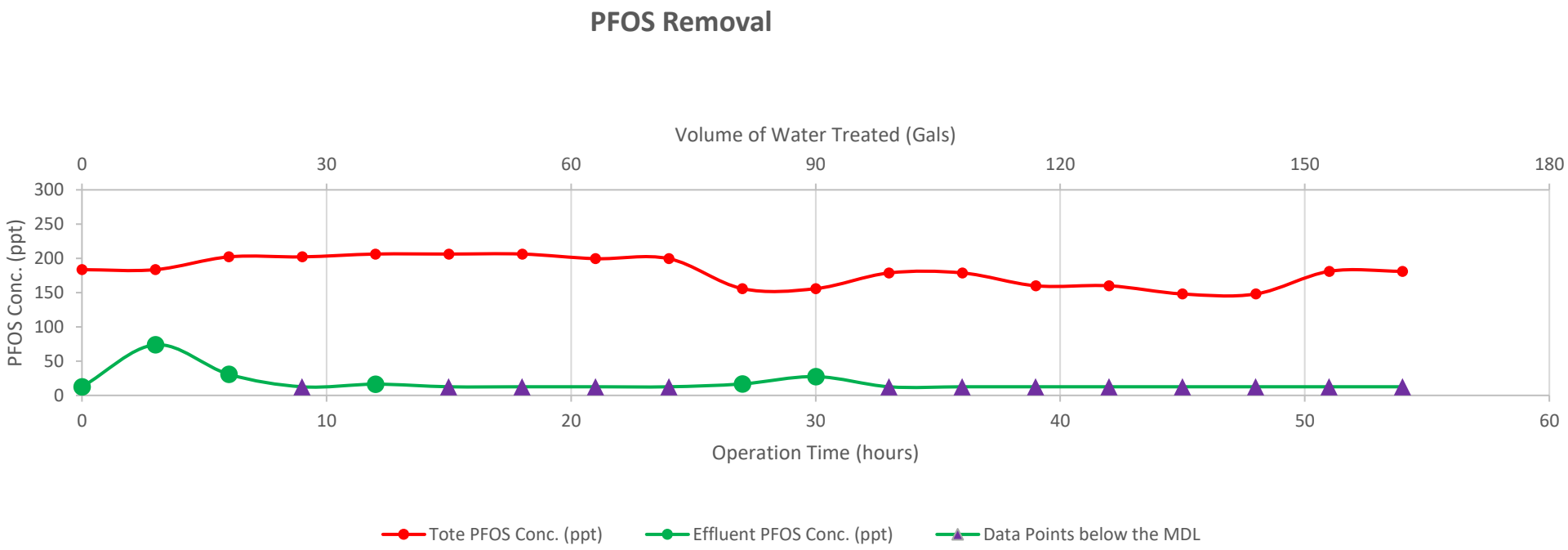
Removal Efficiency



- Results from our bench scale reactor have shown between 96% - 100% removal of PFOS after one treatment

- Reduced PFOA concertation from 150-200 ppt to below < 12.5 ppt
- 12.5 ppt is the current MDL for PFOS on NuQuatic's LCMS/MS

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