

# CASE STUDY

Cleaning of Fracking Wastewater

Location: USA

Technology: REDOXY treatment form Watch Water

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**ER**  
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*a Water Company*

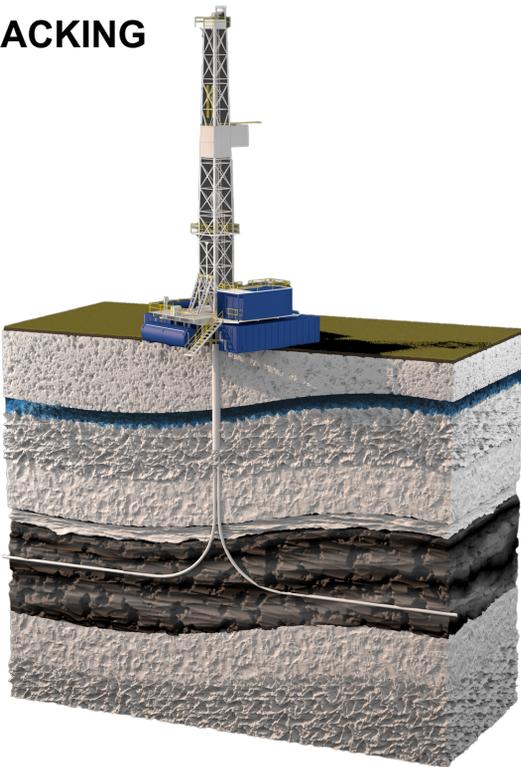


## INTRODUCTION

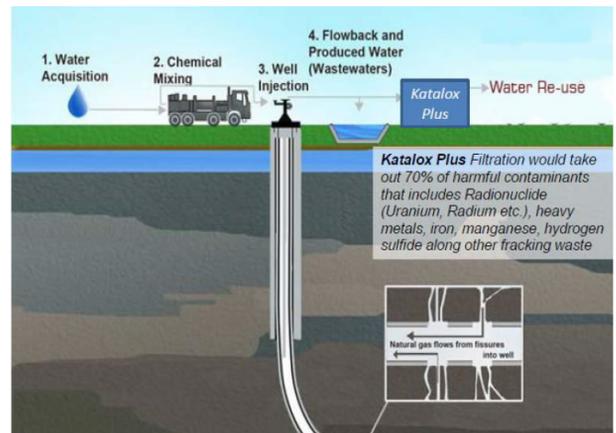
**Watch Water** is a global leader in providing the best and most effective solutions for water and waste water treatment. We expertise in waste water treatment technologies and have extensive knowledge of water chemistry, allowing us to tackle even the toughest water pollution problems. This case study focuses on how **Watch Water** utilized their knowledge to clean wastewater lakes in the USA.

In recent years, many US Lakes have been facing severe water pollution problems. The lakes in the region were heavily contaminated with industrial wastewater, agricultural runoff, and sewage. This particular wastewater lake was formed by fracking process in the area and hence was highly polluted. The customer wanted to use the effluent for agricultural purposes.

## FRACKING



Fracking, also known as hydraulic fracturing, is a process used to extract oil and natural gas from shale rock formations deep underground. The process involves injecting a mixture of water, sand, and chemicals into the rock formations at high pressure to release the oil and gas. While fracking has led to an increase in domestic oil and gas production, it also poses significant environmental risks, particularly in regard to the wastewater produced during the process.



The process of fracking produces large amounts of wastewater, which can contain a variety of pollutants. The wastewater, also known as "flowback," contains high levels of salts, heavy metals, and radioactive materials, as well as the chemicals used in the fracking process. In addition, the wastewater can contain hydrocarbons, which can pose a risk to human health and the environment.

The disposal of fracking wastewater is a major environmental concern. To address the environmental concerns associated with fracking wastewater, **Watch Water** analyzed the water samples and developed a customized treatment plan for the lakes in the USA. We successfully employed **RedOxy** Treatment technology for this particular scenario.

## SOLUTION

Watch Water thoroughly analysed the wastewater samples and recommended **RedOxy** Treatment. **RedOxy** is a proprietary water treatment technology which basically combines oxidation, adsorption and filtration technology in a single system. Oxidation-Adsorption reaction is the strongest for the metals, non-metals and/ or organic contaminants in wastewater treatment.



## IMPLEMENTATION

In the system, water first passes through **Crystollite** filter media to remove all kinds of suspended solids. After that, suitable dosing of **Red<sup>x</sup>**, **Oxy<sup>x</sup>** and **Adsorb<sup>x</sup>** in particular dosing amounts. These chemicals were mixed with the wastewater in the centrally placed contact reaction tank. Finally, for final filtration and polishing, the water passes through **Katalox Light** filtration unit and **Catalytic Carbon** unit.

## RESULTS

The implementation of the **RedOxy** Treatment system proved to be extremely successful, and the results were remarkable. The lakes that were once heavily polluted due to fracking water now had clear and clean water.





## CONCLUSION

Watch Water's expertise in wastewater treatment technologies and knowledge of water chemistry played a significant role in cleaning the fracking wastewater in the USA. Our innovative approach to water treatment using **AOP** technology proved to be an effective and eco-friendly solution to the problem of water pollution. This project serves as an example of how sustainable and eco-friendly solutions can help solve the most challenging water pollution problems around the world.

# FRACKING WATER IN USA OVER 1000+ LAKES



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