



NanoWaterTech Inc. offers innovative nanotechnology-based solutions for industrial water treatment.

## CHALLENGES IN OIL & GAS

Traditional filtration and chemical treatment methods require high concentrations of raw material, leading to high operational costs and lower process efficiency.

The challenges the industry is currently facing:

- Increased **regulatory** pressure to **reduce emissions**.
- The need to minimize **water consumption**.
- Maximizing **asset utilization**.
- Reducing overall **operation costs**.

## OUR SOLUTIONS

NanoWaterTech (NWT) is an innovative energy transition company that implements groundbreaking, easy-to-deploy, and cost-effective technology for industrial water treatment. Coupled with our technical expertise, we optimally service customers resulting in process efficiency improvements, reductions in greenhouse gas emissions, and operational cost savings.

## BENEFITS & EASE OF ADOPTION



Industry leading expertise with the ability to service and support operations for optimal integration results.



Industry-standard designs coupled with our proprietary blend of patented nano-materials **minimize integration risks and process changes**.



**Holistic Approach resulting in Improved Efficiency**



**6X** operational cost reduction directly impacting **chemical savings, asset performance, and operating expenses**.



**5% reduction** in **GHG emission** associated with natural gas steam generation.



Improved equipment and process efficiency resulting in **increased uptime** by up to **3%**.

## PRODUCT OVERVIEW

1

### NanoFilters

Modified walnut shell filters to increase removal in upwards of **30% of Total Organic Carbon, Silica, and Hardness** from the produced water.

2

### NanoFlocculants

Accelerated settling and dewatering of tailings by **2X with 450 ppm injection of NanoFlocculant** compared to **3000 ppm of commercial alternative**. Our product removes the use of gypsum for settling during tailings treatment.

3

### NanoSorbcats

Nanoparticles modified sorbent and catalyst for treatment and removal of stable compounds in water explicitly designed for Oil spill removal.

## INDUSTRY USE CASES



### Hydraulic Fracturing

- Reduced freshwater demand by **30%**
- Increased recyclability by **50%**
- Reduced operational cost for water management by **3X**



### Steam Assisted Gravity Drainage

- Total Organic Carbon reduction of **40%**
- Silica reduction of **35%**
- Reduced total hardness in produced water by **35%**



### Tailing ponds (Third Party Study)

- Increased suspended particle settling by **59%**.
- Increased floc density by **35%**
- **5X** reduction in turbidity of water released

