



OLEOLOGY
ENGINEERING OIL-FREE WATER



C A P A B I L I T Y S T A T E M E N T



PROVEN SUCCESS IN THE FIELD

Does MyCelx really work? Ask the major E&P and SME companies who use the MyCelx Technology to maintain overboard **discharge well below EPA standards** or recycle water onsite and save water treatment expenses.

OLEOLOGY treatment systems exhibit excellent removal efficacy for a wide range of oils and hydrocarbons such as crude oils (light and heavy), condensate (from gas production), tar, waxes, asphaltenes, gasoline range and diesel range hydrocarbons, Polyaromatics (PAH), WSO's and other associated hydrocarbons from water, even when emulsified.

The MyCelx patented filter can achieve oil removal to critically low levels to less than 1ppm while taking up a fraction of the footprint of conventional filtration trains. Treatment systems can be standalone units or retrofitted with a current treatment plant to help achieve the required level of oil recovery and removal.

OLEOLOGY systems are custom designed to **minimise human interference** for operation and maintenance, **handle oil spikes** while removing suspended solids and **reducing oil loading**.

An added benefit, MyCelx systems are much **lower in cost to operate** than conventional systems.

If your current system is not achieving the required levels of oil and hydrocarbon removal or are causing cost concerns. OLEOLOGY can also provide a hire-system as a solution to mitigate the problem with lower CAPEX.

PERFORMANCE BENEFITS

OLEOLOGY systems provide considerable benefits over conventional oil removal technologies and oily water treatment approaches.

These benefits fall into three performance categories: **efficacy, footprint & weight** and **operational reliability**.

EFFICACY

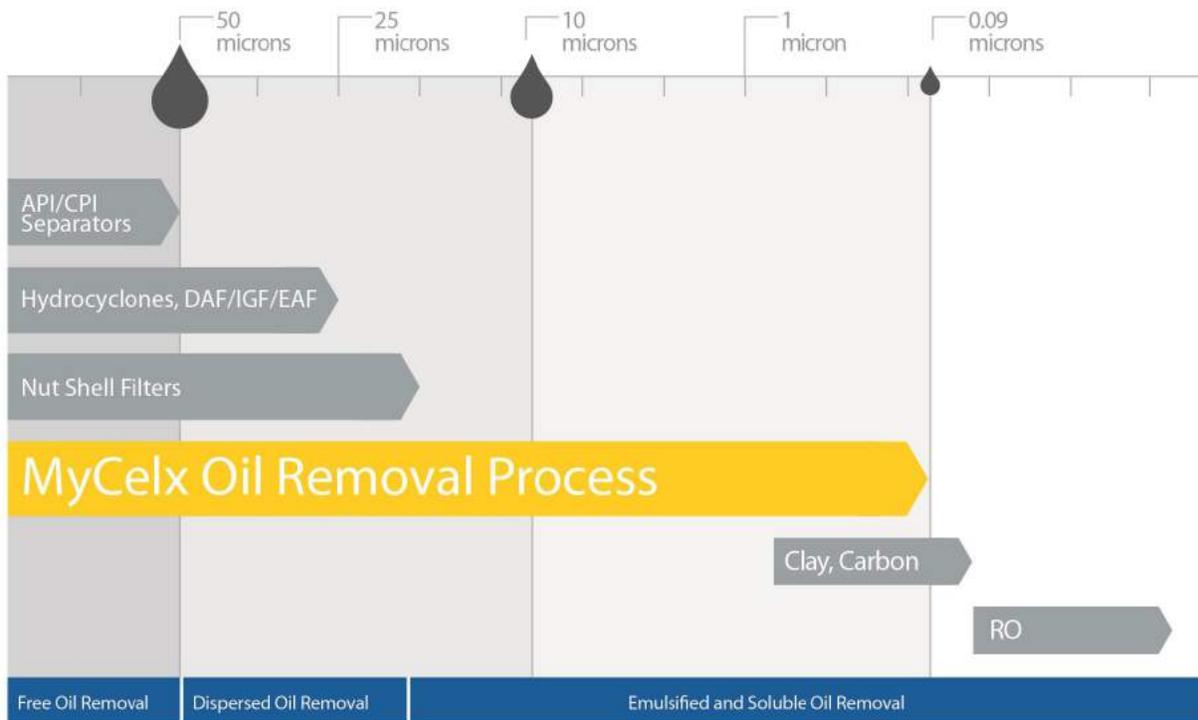
The key reason to implement the MyCelx technology is its' extreme effectiveness in removing oil and hydrocarbons from water. For a fraction of the cost of conventional filtration methods. MyCelx patented polymer will only bond with hydrocarbons and release back into the stream (even when saturated). With smaller droplet size removal, discharging water to less than 1 ppm with a no-sheen discharge, the key MyCelx difference - removes emulsions not just free oil.

FOOTPRINT & WEIGHT

OLEOLOGY engineered systems are smaller than traditional separators and enable oil free water discharge to below 1ppm. The compact size and weight make portable oil and water separation units easy to assemble, and ideal for offshore deployment and in space-constrained facilities or containerised delivered to site as a complete operational unit.

OPERATIONAL RELIABILITY

OLEOLOGY treatment systems are engineered to be simple to deploy, install and operate with minimal instruction or training, and are consistently reliable in delivering water quality.



INDUSTRY APPLICATIONS

OLEOLOGY provides compliant discharge solutions below EPA standards Australia wide, with a range of products & services designed to save money in water treatment.

- **Hardstand and Washbay Solutions**
- **Treatment Systems for Discharge & Recycling**
- **Upstream & Downstream Treatment Plants**
- **Bilge Water Treatment Units**
- **Emulsified & Soluble Oil Removal**
- **Removal of Copper & Other Metals**
- **Rapid Deployment Booms**
- **Spill Response Kits**
- **Hire Systems available (short & long term)**

Maintenance is fast and easy. MyCelx systems can be scaled to meet virtually any production environment, from offshore platforms to onshore production. With MyCelx you'll have produced water treatment for safe discharge, a truly ecologically friendly water treatment solution.

MyCelx systems are robust, compact and fail-safe, ensuring that you meet or exceed your water purification requirements.



TECHNOLOGY PERFORMANCE

MyCelx has numerous applications around the world for treatment of produced water and slops water – On-shore and Offshore

Including SABIC, Chevron (Australia & Gulf of Mexico), Nigeria, USA (West Texas).

Shown below in red was the footprint for the original carbon treatment system and was replaced with the MyCelx system (as shown in yellow). The significantly reduced the footprint and guaranteed water quality enabled very little waste and downtime due to the minimal maintenance.

The system monitors the water discharge and when the discharge limit is exceeded the water is redirected to be treated again or a simple change over of the MyCelx filters.

Existing personnel onsite can execute the filter change with no special tools required.

 **Old GAC Footprint**

 **MyCelx Footprint**



PAST PERFORMANCES

OIL & GAS

WOODSIDE

Problem:

Remove oil in emulsified form ranging between 30-200mg/L

Solution: Water Treatment Package for FPSO discharged to sea <30ppm

Footprint Size: 3m (L) x 2.1m (W)

Flow Rate: 20cu.m/hr

Design & Build Standards:

Materials - 316SS

Piping - ASME B31.3

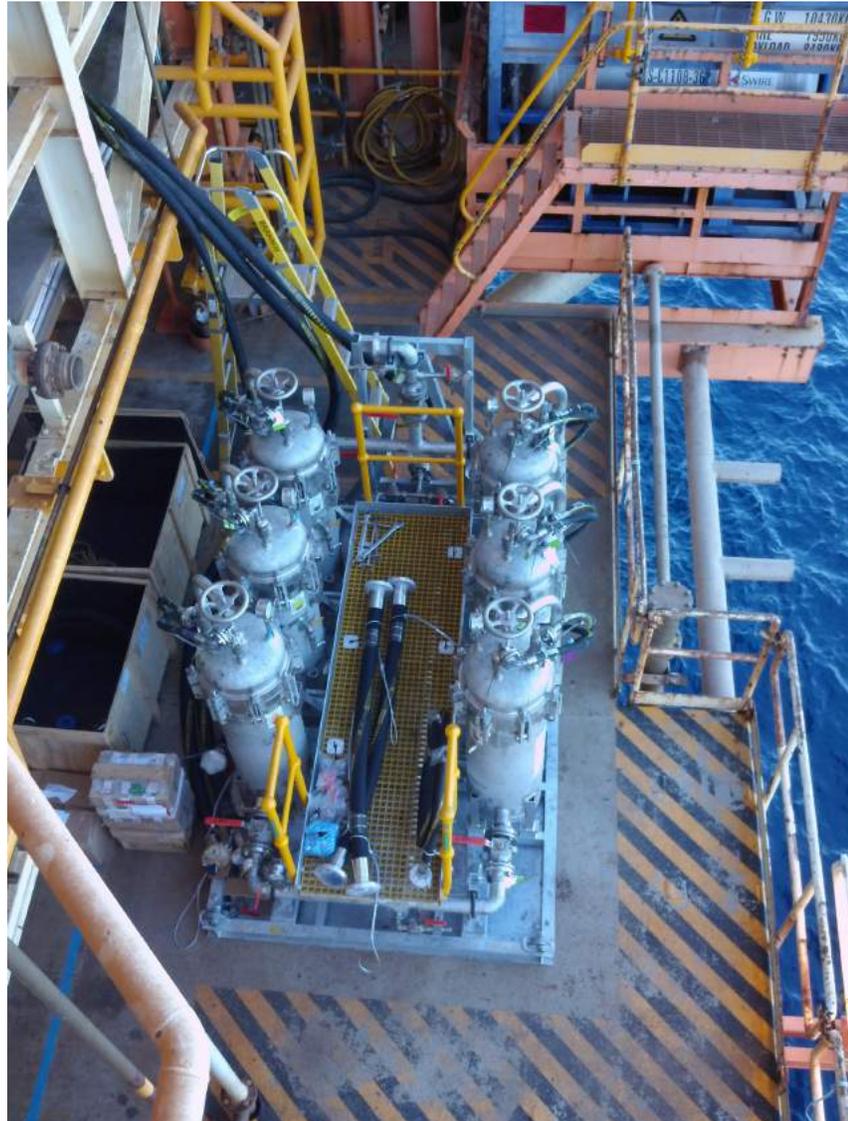
Pressure Vessels - AS1210

Structural Calculations – AS4100

Lifting Lugs and Base Frame

- DNVGL-ST-E273

- AS2741



Above: Installed Skid on FPSO



PAST PERFORMANCES MARINE

South of Perth Yacht Club has lead the way in the marine industry with the multi-million dollar extensive redevelopment which included a new slipway, pen refit, and redesigned their old styled boat washdown and service area.

The large redevelopment also required strict compliance by the Swan River Trust and DER in conjunction with the EPA. These restrictions for water treatment could only be met by incorporating an OLEOLOGY state-of-the-art water treatment and recycling system which enabled the club to fully recycle the hardstand produced wastewater with no discharge to the river.

All water is now treated to such low levels that water can be recycled on the wash bay and reticulation around the club.

Remote monitoring of the system provides a constant tracking of the water quality and optimum operation. Overall maintenance costs have also shown to be more affordable than removing water offsite to be treated or using potable water for the washdown area.



OUR CLIENTS

MyCelx is used in a variety of applications, servicing a large number of clients from Oil & Gas, Mining, Marine, Manufacturing, Facilities & Ground Water Remediation, Heavy Vehicle Wash Bays, Air Filtration and Spill Response.

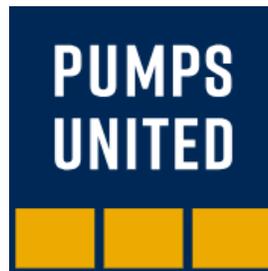
Who uses OLEOLOGY?



WorleyParsons
resources & energy



Australian Government
Department of Sustainability, Environment,
Water, Population and Communities
Australian Antarctic Division





HIRE OPTIONS

MyCelx technology is certified in performance and/or approved by various international authorities including Lloyds Register, ABS, CCS and US EPA.

- Reduce capital expense by hiring an OLEOLOGY Filtration System
- Available for Short or Long Term Rental/Hire
- Skids can be hired with 48 hours notice
- Our plug and run hire systems can be customised to suit your water treatment needs
- Standard hire systems are available to decontaminate water flows at 3, 5, 10 and 20 litres per second

DESIGN

Our valued clients are provided with Engineered Solutions as an add-on for existing systems or design & manufactured as a complete Water Treatment System to meet your water quality specification for reuse or discharge requirements.

OLEOLOGY develops all designs in 3D imaging to provide our clients with an exact representation of their Water Treatment System before manufacture.

MORE QUESTIONS?

OLEOLOGY designs many unique and customised solutions and to view one in action is a great way to answer any remaining questions you may have. Call OLEOLOGY to schedule a visit and view the treatment system or alternatively, we can show you a 3D version of a system for your industry.



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Want to know more about the technology then click through to **OLEOLOGY's YouTube channel.**

