OILFIELD SOLUTIONS

# Versalis

OIL & GAS
WELL STIMULATION
& PUMPING SERVICES



versalis oilfield solutions

# Versalis e°

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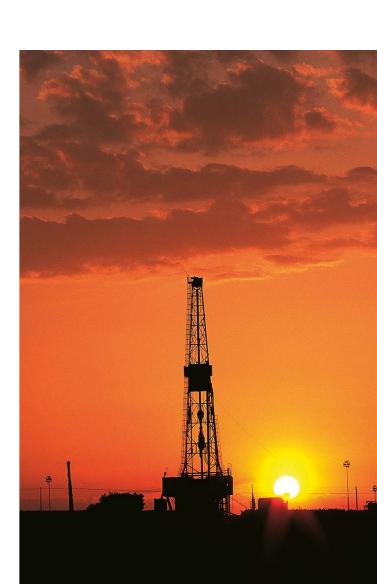
#### INTRODUCTION

Well Stimulation & Pumping Services is a service line of Versalis Oilfield Solutions.

This service is based on Chemical Stimulation Product and Well Pumping Services which are customized according to customer requirement:

- → Laboratory testing.
- → Customized fluids systems.
- → Design of services developed in collaboration with Customer.
- → Pumping, mixing and storage equipment to deliver chemical treatments on location.
- → Experienced personnel.

Versalis Oilfield Solutions believes that a combination of tailored approach, best-in-class chemical products and specialized technical service operations is essential to maximize extraction from oil and gas reserves, while aiming to reduce the impact on the environment and reducing costs.



# Versalis e® product range

### Production Enhancement chemicals for matrix stimulation

During well life cycle, one of the main target is to optimize the reservoir performance to enhance in order to sustain hydrocarbon production.

Versalis e® portfolio comprises a dedicated suite of products for matrix stimulation.

Versalis e® - acid family has different types of pre-mixed acid system such as:

- → Acid based on HCI 15% solution commonly used in carbonate acidizing. Suitable up to 120 °C.
- → Fluid system based on Organic-Non organic mixture developed for HPHT wells and for tight carbonates payzones. Suitable up to 140 °C.
- → Emulsified Acid System with "retarded" characteristic that allows to be more efficient while penetrating the reservoir, with a "live" acid and higher effect in creating worm-holing than traditional HCI acid.

All fluid system can be customized according to customer needs.



#### Water Shut-Off and P&A

One of the biggest challenges in O&G industry is to mitigate water production. The water production is part of life-cycle, especially in water-drive mechanism resevoirs. Once the Water Cut is increasing dramatically the well becames not profitable. **Versalis e® - seal** portfolio comprises dedicated products designed for permanent WSO using polymer sealant:

- → Fluid designed for vertical or slightly deviated wells. Based on cross-link polymer fine tunable at all temperatures. It can Seal-Off the fractures becoming a rigid gel.
- → Fluid designed for highly deviated and horizontal wells. This system has a thixotropic property and able to Seal-Off horizontal fractures.

**Versalis e® - cem portfolio** includes dedicated products designed for selective WSO and P&A applications:

→ Smart cement with "selective" properties: based on ultra-fine cement mixed in aromatic solvent, the fluid system will activate and harden in the presence of water. The system is designed for well-know unwanted fluid production zones.

#### Organic scales removal

During the production phase, the presence of asphaltenes or organic scales into the reservoir and production tubing can cause a heavy oil production decline. In order to support our customer **Versalis e® - solv** portfolio comprises dedicated products designed for organic scale removal.

### Anionic, Ionic and non-ionic surfactants

**Versalis e® - surf** portfolio comprises different surfactants used as demulsifier agent in chemicals treatments.

PRODUCT CLASS NAME	DESCRIPTION AND INFORMATION
Versalis e® - solv	Cleaning treatment agent for the removal of various deposits
Versalis e® - acid	Acid systems designed for production enhancement and optimization
Versalis e® - seal	WSO fluid systems
Versalis e® - cem	Selective WSO and P&A projects
Versalis e® - surf	Anionic, Ionic and non-ionic surfactants
Versalis e® - foam	Anionic, Ionic and non-ionic surfactants







## Pumping Service Equipment

Versalis Well Stimulation & Pumping Services delivers highly qualified personnel to manage on site equipment including:

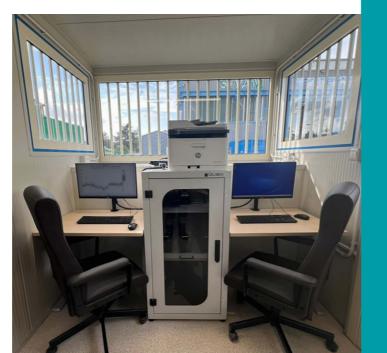
- → High Pressure Pumps.→ High Pressure Lines.
- → Mixing Tanks.
- → Storage Tanks.→ Technical Command Center.













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