



Water Solutions

DUPONT™

DuPont Water Solutions for Oil & Gas

Water quality is critical to improve the recovery and minimize the environmental impact of hydrocarbon production. Solids removal and salinity adjustments from the industrial water produced during this process are a major concern for oil and gas producers looking to protect their wells, lower costs, protect downstream equipment, and reduce safety and environmental issues. DuPont Water Solutions offers expertise and a growing portfolio of technologies to address the unique industrial water resource management needs of the hydrocarbon exploration and production industry.

Water technologies for onshore and offshore systems

The prevention of sulfate precipitation and souring in an injection well or reservoir is a major concern for oil and gas producers looking to effectively extract oil from wells, reduce costs, protect downstream equipment, and mitigate safety and environmental risks. Since injection water quality is critical to improve oil recovery, DuPont Water Solutions provides various solutions that can be used in various steps of injection water treatment systems for safe and reliable operation.

| Products Offered for Injection Water | | |
|--------------------------------------|---|--|
| Pretreatment for Particle Removal | <ul style="list-style-type: none"> • DuPont™ IntegraFlo™ Ultrafiltration • Integrated Ultrafiltration (iUF) | <ul style="list-style-type: none"> • MEMCOR® P20N |
| Offshore Sulfate Removal | <ul style="list-style-type: none"> • FilmTec™ SR90-400i • FilmTec™ SR90-440i | <ul style="list-style-type: none"> • FilmTec™ SR90HR-440i • FilmTec™ Fortilife™ SR90i |
| Desalination | <ul style="list-style-type: none"> • Reverse osmosis & nanofiltration elements | |
| Degasification | <ul style="list-style-type: none"> • DuPont™ Ligasep™ LDM-040-LS • DuPont™ Ligasep™ LDM-120-LS | <ul style="list-style-type: none"> • DuPont™ Ligasep™ LDM-040-HS • DuPont™ Ligasep™ LDM-120-HS |

Addressing pressing needs for produced water treatment

Produced water is the water byproduct that comes out of the well with the crude oil. The composition of produced water varies widely from well to well, but typically contains soluble and non-soluble oil/organics, suspended solids, dissolved solids, and toxic heavy metals and must be treated before discharge or reinjection. DuPont offers a variety of solutions to effectively treat produced water for reuse or discharge.

| Products Offered for Produced Water Treatment | | |
|---|--|---|
| Organics / Oil Removal | <ul style="list-style-type: none"> • DuPont™ AmberLite™ ROC110 Oil-Coalescing Media • DuPont™ AmberSorb™ L493 Polymeric Adsorbent • DuPont™ AmberLite™ XAD™ 4 Polymeric Adsorbent • DuPont™ AmberLite™ XAD™ 16 Polymeric Adsorbent | <ul style="list-style-type: none"> • DuPont™ AmberLite™ SCAV1 Ion Exchange Resin • DuPont™ AmberLite™ SCAV2 Ion Exchange Resin |
| Biodegradable Organics & Nutrients Removal | <ul style="list-style-type: none"> • MEMCOR® B40 | |
| Salinity Management | <ul style="list-style-type: none"> • FilmTec™ SW30HRLE Elements • FilmTec™ SW30XHR Elements | <ul style="list-style-type: none"> • FilmTec™ Fortilife™ XC Elements • FilmTec™ XUS180808 |
| Hardness Removal | <ul style="list-style-type: none"> • DuPont™ AmberLite™ IRC83 H • DuPont™ AmberLite™ HPR8300 H • DuPont™ AmberLite™ HPR1100 Na • DuPont™ AmberSep™ Chelating Resins | <ul style="list-style-type: none"> • FilmTec™ Fortilife™ XC-N • FilmTec™ NF270 Elements • FilmTec™ NF90 Elements |
| Heavy Metal Removal | <ul style="list-style-type: none"> • DuPont™ AmberSep™ IRC748 UPS Chelating Resin • DuPont™ AmberSep™ 43600 Chelating Resin • DuPont™ AmberSep™ GT74 Ion Exchange Resin • DuPont™ AmberSep™ 21K XLT Ion Exchange Resin • DuPont™ AmberSep™ G26 H Ion Exchange Resin • DuPont™ AmberLite™ IRC83 H Resin | <ul style="list-style-type: none"> • DuPont™ AmberLite™ HPR1100 Na Resin • DuPont™ AmberLite™ HPR9200 Cl • DuPont™ AmberLyst™ A21 • DuPont™ Ultrafiltration SFP Modules |

Unconventional & sustainable production of hydrocarbons

Unconventional oil and gas extraction refers to extraction methods other than traditional vertical oil well pumping. Unconventional extraction processes require the use of new, often complex, methods such as developing oil sands (also known as tar sands or bituminous sands), hydraulic fracturing and directional drilling. As these processes become more popular, the exploration of these oil resources also raises environmental concerns such as groundwater contamination and overuse of scarce surface water. DuPont offers innovative water treatment technologies to minimize the environmental impact of unconventional oil and gas extraction methods.

| Products Offered for Unconventional Oil & Gas Water Treatment | | |
|---|---|---|
| Shale Oil | <ul style="list-style-type: none"> • DuPont™ AmberSorb™ L493 • DuPont™ AmberLite™ IRC83 H • DuPont™ AmberLite™ HPR8300 H • FlimTec™ Fortilife™ XC-N | <ul style="list-style-type: none"> • FilmTec™ SW30XFR-400/34 • FlimTec™ Fortilife™ XC70 • FilmTec™ SW30XHR • FilmTec™ XUS180808 |
| Coal Seam Gas | <ul style="list-style-type: none"> • DuPont™ IntegraFlux™ SFP-2880 • DuPont™ IntegraFlux™ SFP-2880XP • DuPont™ AmberLite™ IRC83 H • FilmTec™ SW30XFR-400/34 | <ul style="list-style-type: none"> • FilmTec™ BW30XFRLE-400/34 • FilmTec™ ECO PRO-400 • FilmTec™ Fortilife™ series • FilmTec™ XUS180808 |
| Steam-Assisted Gravity Drainage (SAGD) | <ul style="list-style-type: none"> • DuPont™ AmberLite™ IRC83 H • DuPont™ AmberLite™ IRC120 Na • DuPont™ AmberLite™ HPR1100 Na | <ul style="list-style-type: none"> • FilmTec™ Eco Pro™ • FilmTec™ Fortilife™ series elements |

Learn more about DuPont's product offering in the Oil & Gas industry:

Injection Water Treatment brochure



Water Treatment for Unconventional Oil & Gas Extraction Processes brochure



Produced Water Treatment brochure



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