In this special section, E&P highlights some of the latest products and technologies for shale development and looks at how they will benefit companies in their ongoing search for improved production and more effective operating techniques.
MODULE STREAMLINES JOB MANAGEMENT PROCESS

Water logistics dispatchers are challenged with finding available drivers with the right certifications in the best possible locations for each job. LiquidFrameworks’ recently redesigned FX Schedule & Dispatch module has streamlined the dispatcher’s job for service companies in the water management space by updating, storing and managing all of the pertinent job, personnel and equipment information in one convenient place. Dashboards can be customized with dynamic drag-and-drop functionality, and personnel can be sorted by role, schedule and qualifications. liquidframeworks.com

FX Schedule & Dispatch keeps companies informed of all job-related data and gives users the ability to track all of their resources, including personnel, equipment and materials, so they’ll never dispatch duplicate jobs or unavailable equipment. (Source: LiquidFrameworks)

GREEN FLOCCULANT USED FOR COST-EFFECTIVE WATER RECYCLING

Monarch Separators’ H₂O Floc green floculant is used to reduce the environmental impact of oil and gas operations through cost-effective produced and flowback water recycling while also improving oil recovery. The green alginate floculant’s primary treatment objectives are removal of oil, grease and total suspended solids and when used in conjunction with an oxidant, metals, H₂S and bacteria. Through multiple pilot scale produced and flowback water treatment tests in the Permian, Denver-Julesburg and Powder River basins, H₂O Floc chemistry was able to reduce turbidities from greater than 650 nephelometric turbidity units (NTU) to 1 NTU, oil removal to less than 2 mg/L, and iron and manganese to less than 1 mg/L, while being dosed at a much lower rate than current market floculants. monarchseparators.com

This blended produced and flowback water comparison shows water before (far left) and after treatments (middle and far right) with Monarch Separators’ H₂O Floc and filtration. (Source: Monarch Separators)
WATER TREATMENT SYSTEMS ENABLE REUSE OR SURFACE DISCHARGE

Water Standard has developed its compact and modular H2O Spectrum platform after successfully executing demonstration programs in the Permian, Denver-Julesburg and Powder River basins for treatment of produced and flowback water where cost and operability were key drivers. The H2O Spectrum platform offers the ability to treat water for reuse and recycle, or advanced treatment for safe surface discharge back into the water cycle, demonstrating the stewardship of this water as the most valuable resource. The general constituents targeted for removal in reuse applications include oil and grease, suspended solids, bacteria and iron, while treatment for surface discharge extends to the removal of salt, ammonia and dissolved organics. waterstandard.com

The new vessel for Thincell is shown. (Source: Water Vision Inc.)

ELECTROCHEMICAL WATER TREATMENT ADDS EFFICIENCY

The Thincell direct contact electrochemical treatment technology is providing the oil and gas industry with an in-situ method to cost effectively treat flowback fluids from shale produced wells. Thincell has been proven to surpass electrocoagulation and other similar treatment methods. It reduces soluble and insoluble hydrocarbons, heavy metals, suspended solids and bacteria with an efficiency exceeding 99%. The technology replaces traditional electrocoagulation methods, which are plagued with passivation, the early failure of electrodes due to scaling and corrosion. Instead, Thincell’s cathodes, anodes, sacrificial electrodes and fluidized bed combine to provide multiple treatment reactions in a compact, single treatment chamber. The result is low maintenance, increased uptime, reduced operating costs, higher efficiency and improved personnel safety. watervisioninc.com