



## INNOVATIVE GOLF COURSE PRODUCTS MITIGATE RISK TO ENVIRONMENT AND BENEFIT OPERATIONS

RSC ENVIROLOGIC® CASE STUDY WITH JACOBSEN TURF MAINTENANCE SOLUTIONS



**GREENSCARE™**

Hydraulic fluid spills and leaks from golf course mowers and maintenance equipment are going to happen and with petroleum based products, that means dead, brown turf that has to be replaced. It's a turf management professional's worst nightmare—having to close down a green or fairway for repairs, resulting in unhappy golfers, negative perceptions and potentially lost revenues. To address these issues and the increasing importance of sustainability, RSC Bio Solutions and Jacobsen worked together to successfully launch a profitable brand of biobased hydraulic fluids for the golf industry.

**“IN 2002, WE MADE A COMMITMENT TO MANUFACTURE AND SUPPLY EVERY PIECE OF JACOBSEN TURF EQUIPMENT WITH READILY BIODEGRADABLE OIL FOR THE BENEFIT OF OUR CUSTOMERS.”**

### BACKGROUND

Jacobsen designs, builds and delivers industry-leading turf maintenance equipment known throughout the world. Headquartered in Charlotte, NC,

Jacobsen is a Textron company, marketing and selling products through an extensive global distribution network and its sister company, Ransomes Jacobsen, in the UK.

Globally recognized for the most comprehensive range of high-quality turf care

equipment, Jacobsen is committed to helping golf businesses strengthen their environmental performance. Jacobsen is the only turf equipment manufacturer to have achieved ISO 14001 Certification for environmental management.



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## CHALLENGE

Spills and leaks are going to happen with hydraulic equipment. In fact, 70 to 80 percent loss is typical from hose ruptures, fitting failures, leaks and spills. Petroleum based hydraulic fluids are toxic with potential to bioaccumulate or persist in the environment for a long period of time. They pose a safety hazard to plants, animals, water and humans and require special disposal procedures. For golf courses, a leak of petroleum based hydraulic fluids can kill turf, causing greens or fairways to close and therefore harming a course's reputation and bottom line, due to the loss of greens fees and cost of turf replacement.

In addition to maintaining course appearance and controlling costs, as sustainability expectations rise, more course operators are seeking options to reduce negative environmental impact.

## SOLUTION

To meet the needs of their customers, Jacobsen worked with RSC Bio Solutions, the leader in high performing, readily biodegradable lubricants and cleaners, to develop a customized alternative to petroleum based lubricants: GreensCare™ private label readily biodegradable hydraulic fluids.

GreensCare meets or exceeds USDA BioPreferred requirements and in lab test conditions, biodegrades 60 percent or greater within 28 days.\* By breaking down into water and carbon dioxide, GreensCare hydraulic fluids allow turf to regenerate on its own. Additionally, because the fluids are compatible with all seal and elastomer materials, there is no concern for equipment

damage. In fact, the GreensCare products allow for longer changeover intervals between products, enhancing performance and decreasing maintenance frequency.

For more than 10 years, GreensCare products have proven themselves in real-life applications on golf courses across America, meeting strict technical requirements of leading manufacturers, including Eaton/Vickers and Parker/Denison.



***“Extensive testing by our product and engineering teams with our hydraulic component suppliers has proven that the use of biodegradable oil in our equipment maintains the reliability of Jacobsen turf equipment,” said Klasie Baard, Sales Training Manager with Jacobsen. “In 2002, we made a commitment to manufacture and supply every piece of Jacobsen turf equipment with readily biodegradable oil for the benefit of our customers.”***

\*As per ASTM D7373



In sum, GreensCare products perform as well or better than standard petroleum based hydraulic fluids and eliminate the risk of long-term turf damage and environmental contamination that have long been associated with standard hydraulic fluids.



## RESULTS

The implementation of GreensCare has had a positive impact on golf courses around the country by providing a safer, more socially responsible alternative to petroleum based products. In addition to supporting sustainability efforts, it can reduce remediation and maintenance costs for golf courses, as well as meet or exceed competitor OEM applications.

Because of the environmental benefits and the proven high performance of the products they developed with RSC Bio Solutions, Jacobsen was able to create

a new branded product that resulted in a revenue stream for the company while furthering their position as an industry leader in innovation and sustainability.

***“Those who were fortunate enough to have biodegradable oil in their equipment when they suffered a failure will testify how they saw miraculous surface recovery, whereas those that had the traditional mineral based hydraulic oil will testify how much effort, resources and expense went into the recovery, resurfacing and sometimes reconstruction process.”***

**- Klasie Baard**  
**Sales Training Manager**

## GREENSCARE™ HYDRAULIC FLUIDS

The GreensCare™ products are readily biodegradable hydraulic fluids designed for and exclusively used by Jacobsen. The family of products includes ISO Grades 32, 46 and 68, depending on the application, as well as BioFlush for conversion to GreensCare from petroleum based hydraulic fluid. GreensCare performs as well as or better than standard petroleum based hydraulic fluids and eliminates the risk of long-term turf damage and environmental contamination.

**For more information about RSC Bio Solutions, visit us at [rscbio.com](http://rscbio.com) or call +1 704.684.6100.**



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600 Radiator Road  
Indian Trail, NC 28079-7643  
800.661.3558  
+1 704.684.6100

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