



Green Revolution Cooling's Oil-Immersion Cooling Technology Gives DownUnder GeoSolutions a Competitive Edge

Australia's leading seismic exploration services firm, DownUnder GeoSolutions deploys GRC's oil immersion server cooling to reduce cooling energy needs by 90%.

AUSTIN, Texas ([PRWEB](#)) February 26, 2015 -- Green Revolution Cooling announced today the latest installation of its CarnotJet System at the Australian geosciences company DownUnder GeoSolutions, in Perth, Australia. The liquid submersion cooling system manufactured by Green Revolution Cooling will be used to cool a supercomputing cluster installed in partnership with OEM provider SGI. DownUnder GeoSolutions will use the new cluster to provide exploration and production services to the Oil and Gas industry.

Oil and Gas exploration has always been a capital-intensive process, but with the advent of modern sensing and computer-based modeling techniques, geoscience companies like DownUnder GeoSolutions are helping significantly reduce costs by increasing the probability of finding hydrocarbon reserves. The growing popularity of these techniques has fueled the rapidly growing demand for supercomputers in the Oil and Gas industry.

While supercomputers are saving significant amounts of time, effort, and energy compared to more traditional methods, the systems themselves require significant amounts of energy for power and cooling. The energy spent on cooling a supercomputing cluster can often be as high as that spent on running it. This growing burden of energy costs, along with the recent drop in oil

prices, is adding significant downward pressure on margins across the Oil and Gas industry. Newer technologies such as immersion cooling for computing clusters can cut costs dramatically.

Stuart Midgley, Chief Technical Officer of DownUnder GeoSolutions, said: “DUG has invested heavily in our high performance computing resources, becoming the largest commercial user of Intel Xeon Phi co-processors in the world. The 3800 Phi's combined with the Intel Xeon E5-2600V2 CPUs provide 8PFlops of compute power and generate a massive amount of heat. Cooling a system of this size in a reliable, cost effective and environmentally sustainable way is of paramount importance to us. Any disruption to our data processing can delay client projects worth millions of dollars. That is why we choose the Green Revolution Cooling system. It is reducing our cooling energy consumption by up to 90%, bringing down our total energy cost by around 35%. The new system has proven to be exceptionally reliable and promises to increase the mean time between failures.”

Green Revolution Cooling's innovative approach completely immerses servers in tanks filled with a mineral oil-based coolant called ElectroSafe. The non-toxic, clear, and odorless coolant is an electrical insulator but a good conductor of heat making it ideal for cooling servers and other IT equipment.

“Nobody understands the favorable properties of mineral oil [for cooling servers] quite like geosciences companies. Using high efficiency, oil cooling for supercomputers aids more efficient exploration helping reduce capital expenditures and ongoing operating costs for these firms. We are proud to have DownUnder GeoSolutions onboard as another satisfied customer,” said Christiaan Best, CEO and Founder of Green Revolution Cooling.

Historically, mineral oils have found similar applications in the electrical and automotive fields. Its use as a coolant and electrical

insulator in liquid-filled transformers is well documented and dates back more than a century. Green Revolution Cooling's CarnotJet System has adapted this technology to tackle the challenges of growing energy costs in today's data centers.

About DownUnder GeoSolutionsDownUnder GeoSolutions is an innovative geosciences company whose products are at the cutting edge of exploration and production services to the global oil and gas industry. To learn more about DownUnder GeoSolutions visit www.dugeo.com.

Connect with DUG on [Twitter](#) (@DownUnderGeo), and [LinkedIn](https://www.linkedin.com/company/downunder-geosolutions-group)(linkedin.com/company/downunder-geosolutions-group).

About Green Revolution CoolingGreen Revolution Cooling creates the most powerful, efficient, cost effective solution for data center cooling in the world. GRC offers the CarnotJet™ System, a liquid submersion cooling system for any rack-based OEM server. It uses a non-toxic mineral oil with 1,200x more heat capacity by volume than air with end results which allow for 95% less cooling power used, 10-25% less server power used, dramatically reduced infrastructure costs and increased server reliability. To learn more about Green Revolution Cooling and CarnotJet™ System visit www.grcooling.com for more information.

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Contact Information:

Dhruv Varma

Green Revolution Cooling

<http://www.grcooling.com>

+1 5126928003 Ext: 405