

COMPUTING TERMS	
HPC	HPC or high performance computing allows large and complex data sets to be processed very quickly by performing extremely large numbers of calculations at a rapid rate. A supercomputer contains thousands of machines that work in parallel to complete the processing tasks.
HPCaaS	HPCaaS or high performance computing as a service provides clients with access to significant HPC and storage. DUG's service is backed by expert support staff who ensure clients are successful running their scientific data analysis on DUG's HPC.
Flops	Floating point operations per second. The number of "flops" is used to measure a computer's processing speed.
Petabyte (PB)	A petabyte is 10^{15} bytes of data. This is equivalent to 1,000 terabytes (TB) or 1,000,000 gigabytes (GB).
Petaflop (PF)	A petaflop is equal to one thousand trillion (10^{15}) flops. Floating point numbers can be expressed in different ways, such as single- or double-precision, depending on the number of bits (a bit is the smallest unit of data in a computer) required. DUG has recently converted its petaflop numbers from single precision to double precision to be consistent with emerging best practice.
Exaflop (EF)	One thousand petaflops.
Exascale computing	Computing systems capable of at least one exaflop, or a billion billion (i.e. a quintillion) calculations per second.

DUG TERMS	
DUG's custom-designed and built supercomputers are affectionately named per location	<p>'Bruce' located in Perth, 'Bubba' located in Houston, 'Bazza' in London and 'Bodhi' in Kuala Lumpur.</p> <p>'Bruce' is one of the biggest supercomputers in the southern hemisphere, wielding the processing power of two million laptop computers, which would soar four times the height of Mount Everest if vertically stacked.</p> <p>'Bubba' resides at Skybox, a state-of-the-art, secure data facility in Houston. The first 15-megawatt (MW) room at Skybox is complete and plans, permissions, site, and power are in place for building an exascale machine on site. Bubba is one of the greenest supercomputers in the northern hemisphere.</p>
Skybox	<p>Skybox is a state-of-the-art, secure data facility located in Houston Texas and is home to Bubba – the northern hemisphere's greenest computer.</p> <p>The computer room was commissioned in May 2019 and construction of the 15 MW data hall is now complete.</p> <p>DUG is populating the room as demand dictates.</p>

DUG TERMS (CONTINUED)	
DUG McCloud	<p>DUG McCloud is a customer focussed and collaborative cloud platform that allows clients to mix and match DUG’s high-performance computing as a service (HPCaaS), professional services, and software to suit their needs.</p> <p>This includes disk storage and a unique, cost-effective online archive facility that allows web-based data visualization.</p>
DUG Insight	<p>DUG Insight is a modern, intuitive and interactive software suite. Ultimately, it is a signal processing and visualisation system.</p> <p>DUG Insight is an integral part of DUG McCloud with the oil & gas industry but has applications for an array of other industry sectors.</p>
HF-FWI	<p>High-frequency full-waveform inversion is a state-of-the-art technology for processing and imaging seismic data. It utilises the entire seismic wavefield to generate refined, high-resolution earth models for imaging and characterisation.</p>
DUG Cool	<p>DUG Cool is patented technology for DUG’s advanced, flexible and modular dielectric-fluid cooling system for compute. It fully submerges standard computer nodes into specially designed tanks of non-toxic, non-flammable, biodegradable cooling fluid. The thermal properties of the fluid mean that energy consumption of the computer rooms is greatly reduced.</p> <p>DUG Cool provides DUG with 46% reduced energy consumption compared to conventional air/water cooling systems.</p>