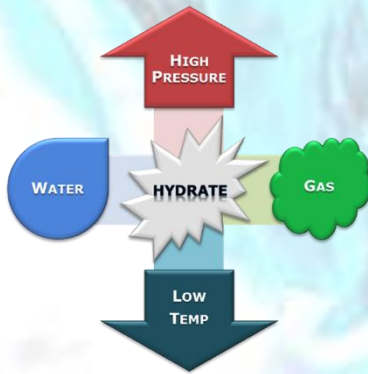




Blue Gentoo is an independent company focused on gas hydrates, wax and asphaltene issues in the oil and gas industry. The ethos of the company is to be a trusted advisor, providing high quality, cost effective services to its clients.

Gas Hydrate Management



Gas hydrates are a major concern for oil and gas producers. Hydrates form when natural gas mixes with water at high pressure and low temperatures. These restrict hydrocarbon flow and impact the reliability of supply.

Traditional methods of hydrate management involve injecting large quantities of MEG into the hydrocarbon stream, often over-dosing based on a worst-case scenario. This costs the industry billions of dollars per year in increased CAPEX and OPEX, yet hydrates remain a significant and on-going risk.

Blue Gentoo provides its clients with tools to actively manage gas hydrate risks and in particular optimise the MEG injection process. This provides greater flow assurance, delivers cost savings and environmental benefits. We offer an integrated hydrate management solution, comprising patented technology and software, project management, consultancy and training. We also provide trouble-shooting and support for hydrate remediation operations.



Blue Gentoo has partnered with Hydrafact Ltd., a Heriot-Watt University spin-out company which is world renowned for its expertise, knowledge and research into gas hydrates. The partnership combines the technical knowledge of Hydrafact with the extensive industry background of Blue Gentoo.

Value assurance for your Operations

Lower Risk
 Better hydrate management
 Pro-active and predictive
 Reduced human error

Environmental
 Reduced energy demand
 Less MEG regeneration

Improved Field Economics
 Better hydrocarbon recovery
 Extended field life

Lower OPEX
 Optimise MEG usage
 Lower energy requirement

Lower CAPEX
 Smaller infrastructure
 Smaller MEG regeneration plant



Products and Services



About Us

Blue Gentoo Ltd. was formed to address gas hydrates, wax and asphaltene issues by three experienced energy industry professionals. The executive management team comprises Phil Bremner, CEO – Innovation; Chris Oliver, CFO – Finance; and Chika Uduma, VP Sales and Marketing. All have a proven track record in the oil and gas sector, having worked for Operators, large service companies and specialist technology and consultancy businesses across the globe.

For further information on any of our products and services or any other enquiries please contact us as follows:

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Crichiebank Business Centre, Mill Road, Inverurie, AB51 5NQ
Telephone +44 (0) 1467 621816
E-mail enquiries@blue-gentoo.com
www.blue-gentoo.com

HydraCHEK®

Knowing the actual concentration of salt/inhibitor in the aqueous phase eliminates all uncertainties related to process parameters (e.g., water cut, pump rate, inhibitor purity, partitioning in other phases, etc). HydraCHEK® is an oilfield analysing solution which measures the actual concentration of hydrate inhibitors and salts from a produced water sample and delivers fast accurate results in under 10 seconds. It is simple to use and requires no chemicals or consumables.



Whether adopting a traditional hydrate avoidance strategy or a risk based hydrate management strategy, HydraCHEK® allows the optimisation of inhibitor injection rates and yields;

- Significant OPEX reductions
- Improved oil/condensate and gas quality
- Reduction in chemical storage requirement
- Reduction in environmental footprint
- Extension of life of field, as well as
- Reassurance of peace of mind by making sure enough inhibitor is injected

HydraCHEK® is able to work with all salts and inhibitors including MEG, Methanol, DEG, TEG, KHI's and AA's and has been deployed in many fields around the world, resulting in millions of dollars in cost savings and revenue generation.

Available in two versions: offline, designed primarily for both onshore and offshore laboratory installations (shown above) and online, designed primarily for field installations for sampling in live flow, measurement and disposal (shown below). HydraCHEK® allows accurate hydrate phase boundary determination, and in combination with monitoring, real time pipeline/ system condition to assure optimized production operations.

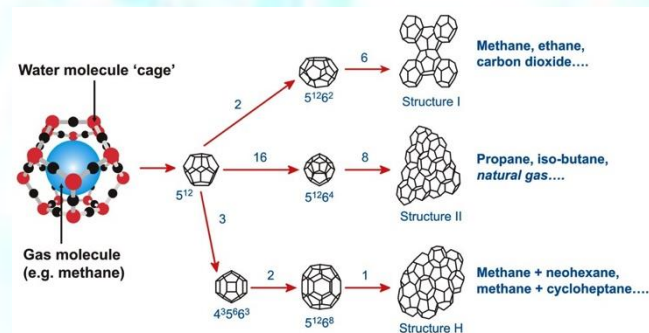
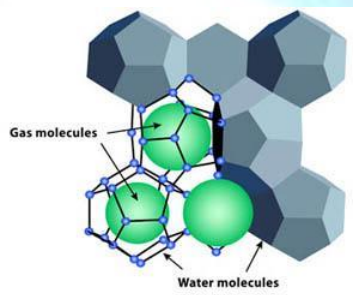




HydraSENS®

Further enhancing our intelligent gas hydrate management suite is HydraSENS®, our flow reassurance technology that provides early detection warnings of the formation of gas hydrates. HydraSENS® allows our clients to:

- Detecting initial signs of hydrate formation by monitoring changes in the gas phase
- Locate the position of gas hydrates formation within the production stream



HydraSENS® offers

- Better control for production flow assurance strategies,
- Visibility and knowledge of an on-going occurrence of gas hydrates formation,
- Significantly reduced time-taken when determining location of a formed gas hydrate plug
- Improved safety culture during gas production operations

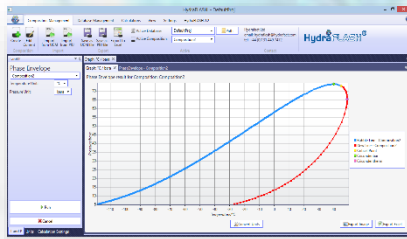


Offshore Engineering, 2016

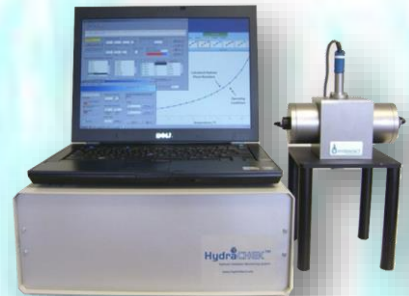


Integrated Solutions

By combining software that reliably models the hydrate dissociation curve, and a device that efficiently monitors the actual concentration of hydrate inhibitors and salts, with a system that provides early detection of gas hydrate formation, Blue Gentoo provides an integrated suite for Intelligent Gas Hydrate Management.

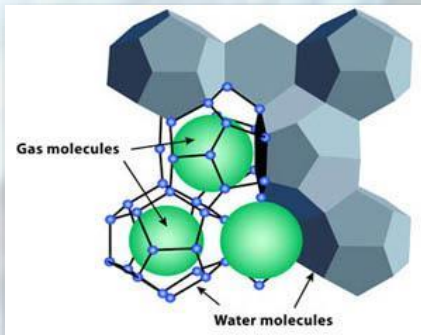


HydraFLASH®
PVT modelling

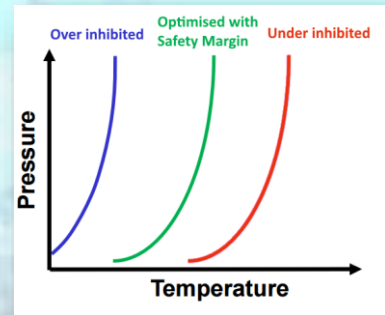


HydraCHEK®
monitoring

Total peace of mind



HydraSENS®
prediction



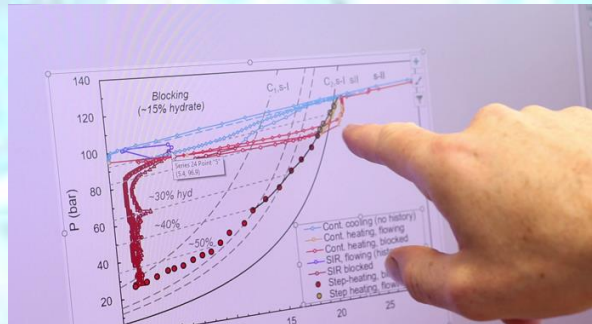
Strategy
Optimising

Integrated Suite for Intelligent Gas Hydrate Management



Consulting

Blue Gentoo provides gas hydrate, flow assurance and PVT consulting and technical services for the extraction, transportation and storage of oil, gas and multiphase hydrocarbon products. Experimental services (including an H₂S lab) allow a proper understanding of fluid properties in operating conditions. By combining expertise, laboratory research and technology we are able to simulate real pipeline conditions and use the results to provide clear operational recommendations for clients.



Thermodynamic modelling allows a wide range of flow assurance related challenges to be addressed, from early assessment of potential problems to designing the best remediation strategy. We can accurately model the phase behaviour for systems containing gas, oil, water and condensate mixtures in the presence of salts and organic inhibitors with or without gas hydrates.

The worst case flow assurance scenario requires care and knowledge of the hazards. Blue Gentoo provides expert technical advice on the best strategy to remove blockages safely and quickly. From locating the plug, to safe and speedy removal, we are always on hand to provide expert technical advice on dealing with hydrate blockages.

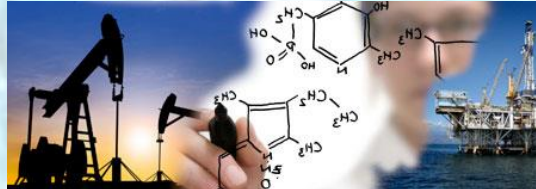


Alongside gas hydrates we also provide laboratory-based flow assurance services to interpret and analyse well data and run simulations for the purpose of predicting, diagnosing, preventing, and mitigating asphaltene and wax deposition problems in sub-surface facilities, process equipment, flowlines and pipelines.



Training

Blue Gentoo can provide a wide variety of training courses including practical PVT and flow assurance training. Courses can be provided in-house at a client's choice of location, Heriot-Watt University in Edinburgh UK or Blue Gentoo HQ in Aberdeenshire UK. Our training programmes can be tailored to suit your requirements and we combine a variety of learning methods to keep you up to date with new developments and technology in the industry.



Typical Courses are listed below:

- HydraFLASH® User
- HydraCHEK® User
- Phase Behaviour and PVT Properties of Petroleum Reservoir Fluids
- Gas Hydrates and Flow Assurance
- Applied Gas Hydrate
- Petroleum Engineering for other Disciplines
- Petroleum Reservoir Rock & Fluid Properties
- Multiphase Flow Modelling of Crude Pipeline Networks
- Applications of Equations of State in the Petroleum Industry
- Oil and Gas Process Design and Equipment Sizing

Specialized Courses¹ are listed below:

- Advanced Reservoir Engineering
- Fundamentals of Reservoir Engineering
- Applied Reservoir Simulation
- Enhanced Oil Recovery



Case Studies

For case studies or any other enquiries including further information on our products and services please contact us through details below:

¹ Prior notice required