



## Digital Well Construction Collaboration Ensures One Truth

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### ABSTRACT:

AGR has designed, planned and managed drilling campaigns since 2000. During this time, we have delivered over 540 well projects without any major incidents. To keep track of; experience, performance and cost is the essence and how we do this, is presented here.

Over the years our **iQx™** software applications have evolved and is now an efficient suite of applications independent of suppliers, operators and organizations; **OA™**-offset analysis, **P1™**-time&cost estimation, **CT™**- time&cost tracker, **Ex™**- Experience and newly launched **D2™** - A collaborative software for planning and reporting. Currently 1000+ users in 15+ companies are using **iQx™** suite of applications.

This presentation is about D2™, a revolutionary tool for planning, operations and reporting. It is organized with an easy to use menu and is a sequence driven tool, where different suppliers, managers, geologists and engineers can find together in a collaborative work environment.

Construction planning, execution and reporting of wells has always been collaborative work between operations geologists, drilling engineers and service companies. The work entails many people and organizations; interacting to achieve good results. The challenges are:

1. Lessons learnt from experiences in the area must be captured and made available
2. G&G basis of design (pressure constraints) to be an integral part of well design
3. Well design is to be an interactive and iterative process making good and efficient choices
4. Data acquisition program is a collaborative effort between suppliers, drilling engineers and operations geologists

D2™ is a focal point for planning in terms of different inputs to a drilling program and experiences/lessons learnt in the end of well report. The application works seamlessly with tabular inputs and text where various contributors make up parts of the program and reports, ensuring one digital truth. The application is interactive with OA™, P1™, CT™, Ex™ and is ideal for the current situation of digital meetings and remote collaborations. *"We may never go back to endless travels and meetings!"*

The operations geologist and the drilling engineer will both benefit from capturing and utilizing well experiences into the current well planning. For the geologist the formation incident reports such as; lost circulation, cavings, connection gas, tight hole etc. are



captured from the daily reports and are filtered by; formation, well and sections. Any of the digital daily reporting systems are supported.

Interaction between the operators, contributors and service providers is facilitated through forms and input tables, with request by date, approval and final consent, to end up with one efficient digital truth - the drilling program. Figure below shows an example of automated well planning montage.

End of well reporting has been a bit of a low priority in many companies, thus usually more time consuming than necessary. In D2™ all contributors are engaged and requested to do their contribution online with a deadline. In this way the end of well report is generated automatically and timely. This ensures a consistent format, capturing all relevant information.