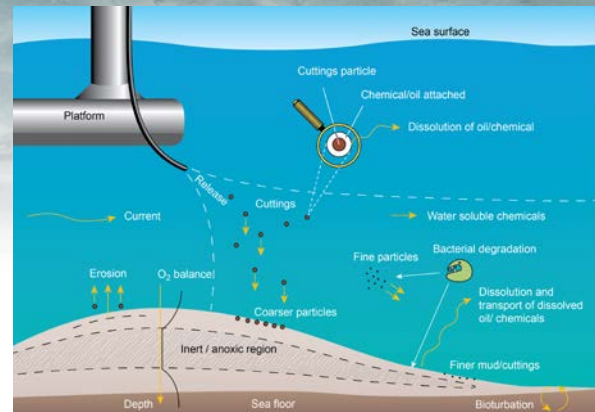


# DREAM/Partrack model

March 2015

## First commercial release of the DREAM/Partrack model

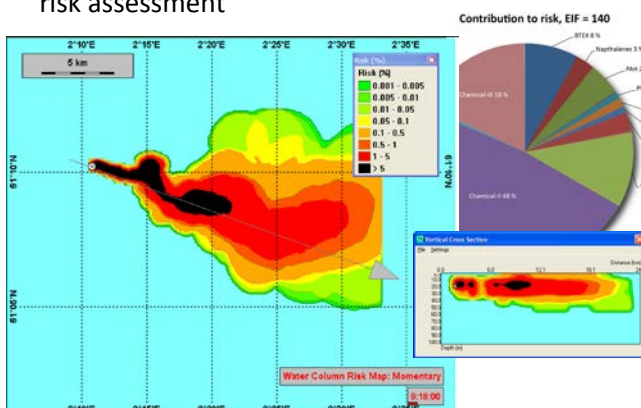
The DREAM/ParTrack model for simulating produced water and drilling discharges is for the first time released for commercial applications. This has been made possible by the DREAM Charter project, funded by Statoil ASA, BP Exploration Operating Company Ltd., ENI Norge AS, Total E&P Norge AS, ConocoPhillips, and Det Norske Oljeselskap.



**The DREAM model** (Dose related Risk and Effect Assessment Model) is a three-dimensional Lagrangian particle model for assessing the consequences of regular, planned releases to the marine environment. DREAM helps visualizing and analysing releases occurring over extended time periods and in large water volumes.

Some of the tasks suitable for DREAM include:

- Analysis of impacts on the environment from releases of produced water
- Time-varying exposure of representative individual organisms
- Acute and chronic effects calculations
- Risk assessment
- EIF (environmental impact factor) calculations
- Decision-making and approval of planned releases
- Multi-release-point drilling discharges, impact and risk assessment



DREAM comes within the Marine Environmental Modelling Workbench, a graphical user interface to setup the simulations and to explore and post-process the simulation results.

**The ParTrack model** (Drilling discharges) comes with the DREAM license and includes releases of drill muds and cuttings. Additional environmental risk calculations for bottom sediments and particle stress in the water column are available here.

Typical applications:

- Spreading and deposition of discharge from drilling
- Multi-release-point drilling discharges, impact and risk assessment
- Diagnostic model for important processes in the sediment (biodegradation, bioturbation, oxygen depletion)
- All gridded output from the models can be exported to GIS.

A license gives access to both models (DREAM+ParTrack).

As a non-profit organization SINTEF put all income through license fees directly into further development and improvement of the DREAM and ParTrack tools.

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