

Preliminary Project Statement

Gulltopp Group Project

The Gulfaks Field in the North Sea, operated by Statoil, consists of several reservoirs. One of the satellite fields is Gulltopp, around 10 km west of the main field. It is assumed to be quite isolated from the rest of the reservoirs but may share a large aquifer with some of the other satellites. In this group project you will study the Gulltopp field. On ItsLearning you will find a short .ppt intro to the field in addition to relevant data the folder named GULLTOPP.

The Gulltopp Field was also used as group project in TPG4150 last fall, but then you worked with MBE, while this semester you will use Eclipse. However, you will find some of the files used last semester on ItsLearning.

The Gulfaks Reservoir Management Plan (RMP) contains descriptions of all fields in the Gulfaks area, including Gulltopp. This is a good reference for descriptions, discussions and data. Look for satellites and Gulltopp. The Eclipse input data file and the required include folders/files may be downloaded from ItsLearning. This is the official history matched model of Statoil dated 2008. The field was discovered in 1998 but came on production in 2008 through a 10 km long well drilled from a platform on the main field. It was produced until the end of 2014, and then shut in.

Key issues:

- ***The Gulltopp Field is assumed to contain a reservoir with limited communication with the Gulfaks Field and satellites.***
- ***The Gulltopp satellite is assumed to share a large aquifer with surrounding fields***
- ***The Eclipse model developed by Statoil represents their interpretation of the reservoir properties, including a number of dummy water producers that represent outflux to the aquifer. Run the model and study how Statoil has constructed it.***
 - ***Propose one or more alternative development plans for the Gulltopp field as alternative(s) to Statoil's plan. This could include additional injection and production wells.***

A list of the group members for all the groups may be found on ItsLearning. The groups will be responsible for arranging meetings and discussions as needed to solve the problem. You are encouraged to solve as much as possible in close collaboration.

Initially, your group should start today (29.2.16) to get familiar with the problem and the data available, and plan how to proceed. Next, we'll meet on Thursday March 3. At that time, we'll take a short status report from all the groups for the purpose of sorting out common problems and to get additional instructions. Until then, the groups should have agreed on problem definition, data required and need for additional knowledge.

Final presentation (.ppt) in P13: April 21