

Gulltopp Group Project

The Gullfaks 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. There is a short intro to the field and relevant data on Blackboard in the folder named Group Project.

The webpage with data is <http://www.ipt.ntnu.no/gullfaks> (you'll get the user and pw in class) The Gullfaks Reservoir Management Plan (RMP) contains descriptions of all fields in the Gullfaks area, including Gulltopp. This may be a good place for you to get started. Both the 2007 plan (in English) and the 2008 plan (in Norwegian) are in the Group Project folder. Several other documents with data that may be relevant for the project are included in the folder. However, the data in the folder may not be sufficient to solve the problem, or may not necessarily be needed. The field was discovered in 1998 and 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.

Preliminary problem statement:

- ***The Gulltopp Field is assumed to have communication with the rest of the Gullfaks satellite fields through a common aquifer. Find out if this is a reasonable assumption, based on the data currently available.***
- ***What are the major uncertainties of the system? Discuss their possible effects on computed volumes and flows.***
- ***Quantify by calculations (Material Balance Analysis) possible fluid flows in or out of the field, with a number of scenarios with variations in reservoir properties and volumes.***

A list of the group members for all the groups may be found on Blackboard. 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 cooperation.

The project starts today **Wednesday September 27**. We meet in **P1 at 815** for a presentation of the Gulltopp Satellite Field and to get basic information on the problem and the data available. Next, we'll meet **Wednesday October 4 at 915** for a brief Q&A session for resolving any questions you might have after looking at the data available. Please make sure that you have met with your group and discussed how to proceed with the project, including having visited the Gullfaks Field webpage. After that, we'll meet **every Wednesday at 915 in P1** for a short status report from all the groups and for sorting out common problems.

The final product of your group work will be a .ppt presentation to be presented for the class in P1 last week of the teaching semester.