EXPERIENCE

TYRA WEST, WELLHEAD COMPRESSION, MAERSK OIL
DENMARK, 1999

The work included retrofitting extension of existing facilities to accommodate the required equipment, a.o. an LP compressor and corresponding utilities. In addition to the above modifications on Tyra West, the work included modifications of the receiving facilities on the Tyra East platform such as a new LP separator and a re-allocation of the pipelines between Tyra East and West.

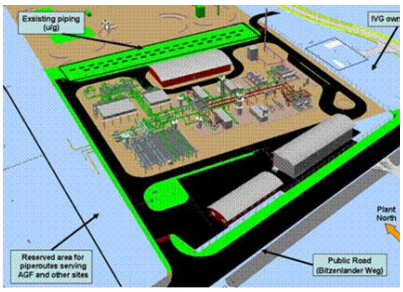
SOUTH ARNE, UNDERBALANCED DRILLING, HESS DENMARK
DENMARK, 2005/2006

The project included specification of liftgas compressors, modification of "second hand" API 11P JOY (now part of Gardner Denver) reciprocating compressors driven by Caterpilar C16 diesel engines. The compressors were designed to receive liftgas at 125 barg pressure and discharge at nominally 250 barg.
The re-building and testing of compressors took place with CLS, Kaspar, Wyoming in USA. ROG was also responsible for accept from Danish Authorities.

SOUTH ARNE, FLARE GAS RECOVERY, HESS DENMARK
DENMARK, 2003/2008

Study and detailed design for installation of a zero flare system. The zero flare system includes a re-compressor package; i.e. an electric driven API 619 screw compressor, which collects the low pressure gas from the flare system and compresses it back into the gas process. The flare is thus only ignited in case of major process upsets.

ETZEL GAS STORAGE, DONG/BP/EKB
GERMANY, 2007/2008



Ramboll's scope of work included Design preparation of Tender package and follow up for the gas injection facilities (gas compression facilities).
Initially the gas compression was designed with 2 electrical driven compressors each of 14 MW each (suction pressure 70 Bar, discharge pressure 200 Bar).
The original Tender Package was, in order to benefit from the BP Rotating Equipment Initiative, redrafted in mid 2007.
The original configuration of two compressors in parallel was in the Detailed FEED phase changed to a configuration of three electrical driven compressors of 2x7 MW plus 1x8 MW each (MAN TURBO, HOFIM compressors).

EXPERIENCE

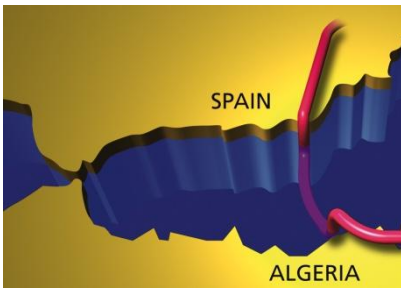
TYRA WEST BRIDGE MODULE, MAERSK OIL
DENMARK, 1994/95.

Ramboll made conceptual and detailed design for the entire gas process module, which included 2 gas turbine driven HP compressors (Dresser API 617 centrifugal multistage tandem compressors driven by GE LM 2500 gas turbines) for gas export and re-injection. The module also included a gas compander for gas dewpoint stabilisation (Mafi Trench).

GORM F, LEVEL 4 MODULE, MAERSK OIL
DENMARK, 1995/96.

Ramboll made the entire front end engineering design including all specifications, vendor data control/commenting and package engineering for major packages. The compression facilities included a Solar Mars gas turbine package with a Demag Delaval, API 617 multistage centrifugal compressor.

MEDGAZ PIPELINE PROJECT, MEDGAZ SPAIN
ALGERIA, 2003/2004



Ramboll carried out the complete FEED for this pipeline project, exporting natural gas from Algeria to Spain. The Ramboll scope included design of the pipeline compressor station on the Algerian side of the Mediterranean Sea.

NEXUS 1 FPSO, NEXUS/APL
NORWAY, 2006/07.

This is a generic FPSO project including all process facilities for handling oil and gas. The Ramboll scope included specification/package engineering in connection with the HP gas compression (2 x electric driven compressor trains, each comprising HP1 multistage conventional centrifugal compressor and HP2/HP3 multistage tandem compressors, API 617, Dresser Rand/ France.) The scope also included 2 x electric driven LP gas compressors (MYCOM screw compressors, API 619) for re-compression of flare gas.