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BMP approval to Capricorn Greenland Exploration 1 Ltd. to acquire 3D seismic data offshore North West Greenland in 2011 under exclusive Licences 2011/13 and prospecting licence 2008/47

25 August 2011
Journal No. 2011-050183
Doc. No. 641793

The application

The Bureau of Minerals and Petroleum (BMP) refers to the "Application to Bureau of Minerals and Petroleum for 3D marine seismic and gravity data acquisition in Baffin Bay block 6 – Pitu by Capricorn Greenland Exploration 1 Ltd." submitted by Capricorn Greenland Exploration 1 Ltd. (Capricorn) on 24 May 2011 in physical copy and electronically on 25 May 2011.

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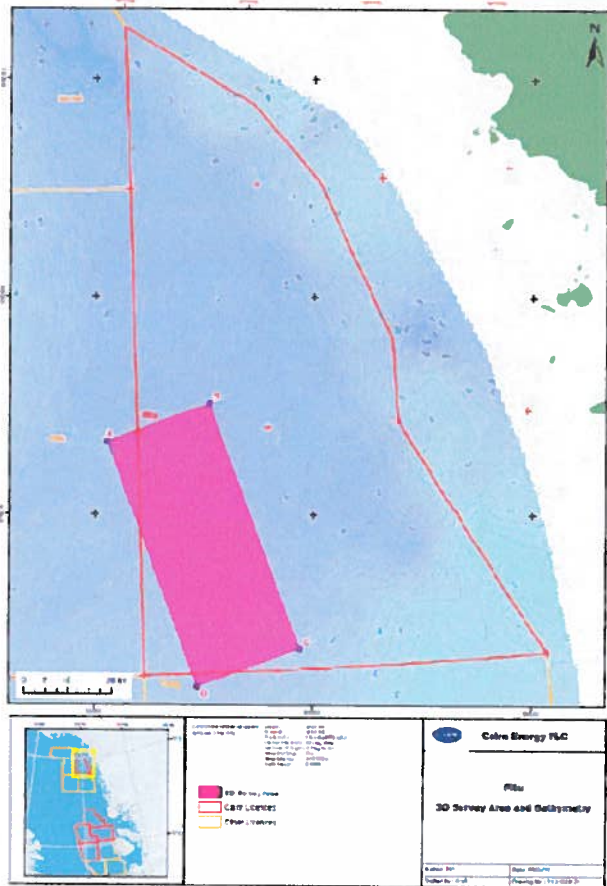
The project

Capricorn Greenland Exploration 1 Ltd. is the operator of Exclusive Licence for exploration for and exploitation of hydrocarbons no. 2011/13 and hydrocarbon Prospecting Licence no. 2008/47.

The objective of the operation is to acquire 3D marine seismic data comprising a total programme of approximately 1,499 full fold km², corresponding to approximately 3,177 sail km. The data acquisition will take place in a survey area within Exclusive Licence 2011/13 and prospecting Licence 2008/47 as sketched out on the below map.

The division of data in the different licence areas is as follows:

- Exclusive Licence 2011/13: 1402.38 full fold km²
- Prospecting Licence 2008/47: 81.32 km² (also covered by Exclusive Licence 2011/12, Anu)
- Prospecting Licence 2008/47: 15.4 km² (also covered by Exclusive Licence 2011/15, Toqq)



The planned survey duration is estimated to be 33 days.

The 3D marine seismic data will be acquired by the geophysical contractor PGS Exploration, on behalf of Capricorn Greenland Exploration 1 Ltd, using the survey vessel Ramform Challenger, chase vessels Valberg and Vesturland and support vessel Ocean Explorer.

Environmental Impact Assessment

Capricorn submitted an Environmental Impact Assessment (EIA) alongside the application. The EIA was submitted to public hearing. Capricorn submitted an updated Environmental Impact Assessment (EIA) for the proposed 3D seismic acquisition on 15 July 2011 in Greenlandic and English. On 21 July Capricorn submitted its responses to the hearing comments to the EIA.

The National Environmental Research Institute, NERI, finds that Capricorn in many cases has incorporated NERI's comments to the EIA, including in the added appendix D. On this basis NERI assesses that the EIA report fulfils the established requirements, however the EIA contains assessments that NERI does not share. This primarily concerns the assessment on how high the sound exposure to the surrounding marine environment will be. Modelling is particularly uncertain in the Arctic given the stratification of the water column.

By conducting a monitoring study during the seismic acquisition the actual sound exposure to the marine environment at different distances from the seismic survey area

can be measured. It is a condition for the approval of the seismic acquisition project that Capricorn conducts a monitoring study of the actual sound exposure to the surrounding marine environment.

If narwhales are frightened away from their summer habitat area in Melville Bay, NERI and GINR assess that they will return next summer; this means that the impact of this one seismic survey will be temporary. If the seismic activities continue in nearby licence areas over the coming years there will be a risk of a more permanent expulsion (cumulative effect). How big such risk is can be examined by the monitoring studies of sound exposure to the marine environment. The results of the monitoring studies can thus also be of use in a future assessment of seismic activities in Greenland waters.

The potential risk of impacts to the environment entails that the EIA must be approved by the government before an approval can be issued cf. Mineral Resources Act § 73, 2.

The Greenland Government approved the EIA on 24 August 2011.

Approval in pursuance of section 15 of Exclusive Licences no. 2011/13 and section 7 of Prospecting Licence no. 2008/47

In accordance with section 15 of Exclusive Licence no. 2011/13 and section 7 of terms for Prospecting Licence no. 2008/47 the BMP hereby approves that Capricorn Greenland Exploration 1 Ltd. can carry out a 3D marine seismic acquisition as stated in the application, including additional information, and summarised above under the following conditions:

- The operation shall comply with:
 - The terms set out in Exclusive Licences for exploration for and exploitation of hydrocarbons no. 2011/13 and Prospecting Licence no. 2008/48
 - The provisions set out in “BMP’s guidelines for application, execution and reporting of offshore hydrocarbon activities (excluding drilling) in Greenland”, May 2011
 - The recommendations in “Guidelines to Environmental Impact Assessment of seismic activities in Greenland waters, 2nd edition” NERI Technical Report no. 785, 2010
- Capricorn shall conduct a monitoring study of the actual sound exposure to the surrounding marine environment. The survey shall follow the design outlined in “Study of Marine Sound Exposure levels in Baffin Bay 2011, Revision 1” of 5 August 2011 or as otherwise agreed with NERI and BMP. The analysis will be conducted by Cornell University. The results of the data shall be made available to NERI and GINR. The confidentiality of the data shall follow the terms of Exclusive Licence 2011/13, section 20.02, b / terms for Prospecting Licence 2008/47, section 11.03.
- Two biological observers shall be included in the operation, see “BMP Guidelines for BMP’s guidelines for application, execution and reporting of offshore hydrocarbon activities (excluding drilling) in Greenland, May 2011”, Section 7.4.1

- The pre-shooting search for marine mammals conducted by the biological observers should extent to 60 minutes, cf. section 3.1 Joint Nature Conservation Committee (JNCC) Guidelines, August 2010. In this period the biological observers should only focus on marine mammals and not seabirds.
- The acquisition of seismic data should as far as possible not take place simultaneously from 2 or more ships in the inner Baffin Bay. The licensee should seek to coordinate with other the operator(s) in the area.
- The seismic data acquisition shall be terminated before 15 October 2011, to avoid seismic acquisition in "narwhale zone II" of NERI Technical Report no. 785, 2010
- Submittal of data shall follow the provisions set out in Chapter 8 and Appendix I to BMP Guidelines for BMP's guidelines for application, execution and reporting of offshore hydrocarbon activities (excluding drilling) in Greenland
- To the extent the data is acquired under prospecting licence 2008/47 in areas which are covered by an exclusive licence, copies of all raw data acquired must be submitted to the Operator of the exclusive licence in question free of charge.

It should be noted, that BMP is only authorized to grant permission to exploration activities inside Greenlandic borders. Therefore this approval is not in any way to be regarded as an approval of any activity taking place outside Greenlandic borders.

This approval is valid from the date of granting to the end of the year 2011, however the seismic data acquisition shall be terminated before 15 October 2011, see above.

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Kind regards



Jørgen T. Hammeken-Holm
Head of Department