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Updated Terms of Reference for SIA

I-1.1

BACKGROUND

The SIA will encompass offshore drilling operations in the Disko West area and associated activities such as onshore base facilities and materials storage, offshore support facilities, crew change logistics, onshore accommodation, oil spill response planning, provision of materials and supplies and project resourcing including local goods, services and labour.

The Project is expected to involve the drilling of multiple exploration wells during 2010, taking place over a period of approximately five months starting in July, based on approval by the Government of Greenland. Procurement, storage, loading and mobilisation activities outside of Greenlandic territory are outside of the scope of the SIA.

The offshore operations will take place over a fixed, relatively short period utilising modern drill units (current plans are for a drill ship and a semi-submersible drill rig operating concurrently) which are highly self-sufficient. The proposed well sites are located in excess of 150km off the west coast of Greenland and will be supported by a range of vessels, helicopters and fixed wing aircraft during the operations.

Onshore elements of the drilling programme will involve activities in the capital Nuuk, at the towns of Aasiaat, Ilulissat and Sisimiut and the settlement of Kangerlussuaq, and are likely to entail:

Kangerlussuaq

- Point of entry into Greenland for personnel mobilising by air (chartered fixed wing flights for an estimated 400-500 persons per month during the drilling operations).
- Internal transfer of personnel landing in Kangerlussuaq by either fixed wing aeroplane or helicopter to Aasiaat (see below).
- Landing facility for oil spill response aircraft, materials and personnel on the highly unlikely event of a major Tier 3 spill requiring international support.
- Contingency accommodation due to transport delays either in local hotels existing transit accommodation or camp provided by Royal Arctic Line.

Aasiaat

- Onshore base facilities supplied by Royal Arctic Line and consisting of:
 - potential materials storage / laydown areas;

- loading and unloading facilities for supply boats, including limited waste receipt and transfer;
 - handling and transport of materials to/from other facilities; and
 - storage of oil spill response equipment.
- Onshore workers' camp up to 12 permanent residents and contingency accommodation for up to 60 project personnel (numbers to be confirmed).
 - Airport for crew changes and Search And Rescue (SAR), providing:
 - reception of flights from Kangerlussuaq;
 - two helicopter flights per day transferring offshore personnel; and
 - base for SAR helicopter.

Ilulissat

- Airport and hangar facilities for helicopters
- Accommodation for approximately 20 persons (helicopter flight and ground crew) – to be provided by Air Greenland or Royal Arctic Lines

Sisimiut

- Royal Arctic Line storage facilities for:
 - potable water; and
 - fuel oil / diesel.
 - domestic waste streams

Nuuk

- In country representative personnel for Capricorn Energy.

Offshore, the mobile offshore drilling units (MODUs) will mobilise to Greenlandic waters from their previous operations. The MODUs will remain offshore for the duration of the programme and will be serviced by a number of support and supply vessels, likely to include:

- Two ice breaker vessel
- Two standby vessels
- Four ice management vessels
- Two supply vessels
- Two helicopters (based and serviced in Ilulissat)

Vessels are planned to mobilise directly to the area of operations off the west coast of Greenland and to demobilise following completion of drilling operations. Onshore interaction is therefore expected to be limited to supply boats entering port to transfer waste materials ashore or to take on fuel, water or materials to support the operations. Potable water and fuel (marine fuel oil, diesel) will be re-supplied via Sisimiut, with the re-supply of other materials and consumables being undertaken from the UK directly to the MODUs or into Aasiaat.

Other than the crews on board the MODUs and vessels, and the helicopter flight and support crews, personnel will mobilise to and from Greenland via the international airport at Kangerlussuaq, with chartered internal transfer via fixed wing to Aasiaat from where they will be taken by helicopter offshore. Helicopter flight and support crews will fly direct to Ilulissat.

Contingency accommodation on the wareship will mean that personnel will remain offshore should there be any delays to internal or international flights. The MODUs and vessels will arrive in Greenlandic waters with the normal contingent of crew, although limited local hire may be undertaken, provided the specific skills, experience, relevant training and medical certification are available.

Spill response capability will be provided on station by the support vessels and backed-up with onshore contingency equipment. In the highly unlikely event of a major (Tier 3) spill requiring additional response capability, experienced resources from Oil Spill Response Limited (OSRL) will be mobilised from the UK to Kangerlussuaq and deployed as per the Oil Spill Response Plan.

I-1.2 SOCIAL IMPACT ASSESSMENT

I-1.2.1 Background

The key reference document for completion of the SIA is; *“Guidelines for Social Impact Assessment for mining projects in Greenland”*, Bureau of Minerals and Petroleum, Greenland, November 2009. Although conceived for mineral exploitation projects, this document; *“...shall with relevant modifications serve as guidelines....for petroleum projects when required by the BMP”*. The stated objectives of the SIA process are:

- to engage all relevant stakeholders in consultations and public hearings;
- to provide a detailed description and analysis of the social pre-project baseline situation as a basis for development planning, mitigation and future monitoring;
- to provide an assessment based on collected baseline data to identify both positive and negative social impacts at both the local and national level;
- to optimize positive impacts and mitigate negative impacts from the activities throughout the project lifetime; and
- to develop a Benefit and Impact Plan for implementation of the Impact Benefit Agreement.

In applying these guidelines to petroleum projects the following key operational differences with mineral exploitation should be taken into consideration:

- Exploration drilling is a relatively short-term activity, in this instance expected to last less than five months from mobilisation of drill units into Greenland water to reaching target depths for all wells.
- The operations take place a considerable distance (>150km) offshore, with no cables, pipelines or permanent structures above the seabed (other than up to six protected small wellheads) or any purpose built onshore facilities required.
- Drill units and accompanying vessels will be fully equipped and come with all necessary personnel. They hold large quantities of materials, food and water as well as being equipped with water makers and treatment facilities and are highly self-sufficient.
- Additional fuel, food, potable water and some materials/supplies will also be required at regular intervals during the operations and will be transferred offshore using dedicated supply vessels operating out of Aasiaat.
- A small number of project personnel will be based onshore at a camp in Aasiaat (up to 12 people). Approximately 20 helicopter and ground crew will be housed in Ilulissat; accommodations will be provided by Air Greenland or Royal Arctic Lines. Two representative Capricorn Energy personnel are expected to be based in Nuuk.

The socio-economic impacts of offshore exploratory drilling, both positive and negative, therefore need to be identified and assessed in accordance with the nature and scale of the planned operations. While account is made of potential future development scenarios, given the early stage of exploration and high number of unknowns, this can only be done in a very general way at this point in time. Should operations move on from exploration drilling it is recognised that more extensive socio-economic studies will be required. A short summary of future development considerations will be provided as part of the project description, with potential broad-scale implications for the socio-economic environment considered where sufficient information is available.

It is therefore proposed to follow the SIA guidelines “...in context with the rest of the project...” and the recommended SIA scope and process for this offshore drilling campaign is detailed below. The principal socio-economic interactions of the proposed operations are expected to encompass:

- Offshore MODU, vessel and helicopter presence/movements with potential impacts to coastal and offshore activities such as fishing, shipping, hunting etc.
- Onshore support base and helicopter base, with potential impacts to local resources, other onshore activities, community health, employment, suppliers and landscape.

- offshore wareship and contingency accommodation with potential impacts to local community, employment and contracting opportunities, community health, and local infrastructure.
- Potential threat of coastal impacts from the very limited threat of either a small release of fuel oil or diesel close to shore, or a major crude release at the drilling locations offshore, with potential consequences for coastal and offshore activities such as fishing, hunting and tourism, as well as the potential for trans-boundary socio-political impacts and secondary economic impacts.

I-1.2.2 SIA Scope

A breakdown of the Social Impact Assessment and recommendations as to how each stage is tailored to the scope of the proposed operations is given in *Table 1.1* below. It is proposed that the Executive Summary is provided in English, Greenlandic and Danish, the main body of the SIA in English and Greenlandic and any Appendices in English only.

Table 1.1 Components of the SIA Process

| Component | Comment |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Front Page</i> | As per SIA Guidelines. |
| <i>Executive Summary</i> | As per SIA Guidelines. Provided in 3 languages. |
| <i>Definitions and abbreviations</i> | As per SIA Guidelines. |
| <i>Introduction.</i> | As per SIA Guidelines. |
| <i>Policy, legal and administrative framework</i> | Due to the overlaps a single Legal and Policy Chapter will be issued for both the EIA and SIA |
| <i>Project description</i> | The same Project Description Chapter will be provided for both the SIA and accompanying EIA. |
| <i>Methodologies.</i> | As per SIA Guidelines. |
| <i>Description of social baseline conditions</i> | As per SIA Guidelines. The socio-economic baseline will be based on both desktop studies and in-country consultation. |
| <i>Analysis of alternatives</i> | The Project Alternatives and Future Development Options Chapter will be summarised for both the EIA and SIA and contained within the Project Description. |
| <i>Potential Impacts</i> | As per SIA Guidelines. |
| <i>Maximization of development opportunities and mitigating negative impacts</i> | As per SIA Guidelines. |
| <i>Benefit and Impact Plan</i> | Mitigation measures (impacts and benefits, plus responsibilities, timescales, monitoring and measurement of successful implementation will be summarised in tabular format.) |
| <i>Monitoring Plan</i> | |
| <i>Evaluation Plan</i> | |
| <i>Public participation</i> | As per SIA Guidelines. |
| <i>Appendices</i> | As per SIA Guidelines (English only) |