



**Roinn Cumarsáide, Gníomhaithe
ar son na hAeráide & Comhshaoil**
Department of Communications,
Climate Action & Environment

Application for approval to conduct an

Shallow Geological Survey

at Kinsale Alpha & Bravo Platforms

Offshore Petroleum Lease (OPL) 1

in the North Celtic Sea Basin

by

PSE Kinsale Energy Limited

Application Date: 6th March 2020

PAD Technical Evaluation & Recommendations

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Department of Communications, Climate Action & Environment

15th July 2020

Executive Summary

PSE Kinsale Energy Limited (Kinsale Energy) is preparing for the decommissioning of the Kinsale Area gas fields and facilities, including the Kinsale Alpha and Kinsale Bravo platforms. On 6th March, 2020 Kinsale Energy submitted an application to the Department to conduct a shallow geological survey at the Kinsale Alpha & Bravo platforms (Offshore Petroleum Lease No.1 (OPL1)) covering blocks 48/20, 48/25, 49/16 and 49/21 in the North Celtic Sea Basin. As part of the decommissioning programme excavation of surficial seabed sediments may be required to access the piles to allow external cutting as part of jacket removal. The survey will determine the present depth of the surficial sediments at each platform to inform the level of excavation needed if any.

The following documents were provided to the Department:

- Application to Conduct an Offshore Survey (Rig Site Geophysical Survey)
- Environmental Impact Assessment
- Appropriate Assessment Screening Report
- Pre-Survey Fishery Assessment

Location, Timeline and Survey Logistics

The survey is to be carried out in the North Celtic Sea Basin between 47km (Kinsale Alpha) and 45km (Kinsale Bravo) off the coast of Co. Cork (Figure 1). Water depth around the platforms is approximately 90 m. Operations are proposed to take place at some point between April 2020 and September 2020 subject to Ministerial consent. The survey duration is estimated at 1 to 2 days, excluding possible weather downtime. Final details, timing and duration of the survey will be communicated to the Department in advance of operations commencing.

Aims of the Survey

Kinsale Energy is preparing for the decommissioning of the Kinsale Area gas fields and facilities, as part of the removal of the Kinsale Alpha and Bravo jackets. Some excavation of surficial seabed sediments may be required to access the piles to allow external cutting of the piles below the jacket legs. The aim of the survey is to determine the present depth of surficial sediments and their contact with the underlying chalk to inform the need for any excavation around the jacket piles during jacket removal. It is only required to determine the chalk/seabed sediment contact is within 5m of the seabed.

Vessel information

The vessel to complete the survey programme has not yet been contracted. A Marine Vessel such as the RV Celtic Explorer, RV Ocean Researcher or equivalent will likely be contracted for the survey programme. When the vessel is contracted, Kinsale Energy will submit a document to the Department with details of the vessel. In accordance with Departmental compliance, a Fisheries Liaison Officer (FLO) and Marine Mammal Observer (MMO) will be on board the vessel for the duration of the survey. The FLO is to maintain good communication with local fisheries and coordinate activities. The MMO's role is to monitor marine mammals, to log all data according to the standardised forms provided in the DAHG Guidance document and to provide an MMO report to the Regulatory Authorities.

Survey Operations

The proposed geological survey will acquire data to determine the present depth of surficial sediments and their contact with the underlying chalk at the Kinsale Alpha and Bravo platforms. Sub-bottom profilers will be used to provide information on the shallow geology around the platforms. The specific equipment to be used as part of the survey is yet to be selected, but information on a range of sub-bottom profilers (SBPs) that may be used has been provided (Knudsen Pinger SBP, Edgetech 3100, Knudsen Chirp 3260, Innomar SES2000) The equipment will either be hull mounted or towed.

Once entering the field, a sound velocity profile will be collected to determine the local speed of sound in water. The survey will then be conducted by sailing 4 lines, approximately 120-160m length, 30 m off each platform face (Figure 2). Where towed equipment is utilized the equipment will first be over boarded prior to the sailing of the survey lines. During the survey the data acquisition will be monitored for data quality and coverage, additional lines may be run if required. No seabed sampling will be undertaken. The data acquired will inform the need for any excavation around the jacket piles during jacket removal.

PAD Technical Recommendation

The application from Kinsale Energy for an offshore geological survey has been technically evaluated by PAD Geoscientists. Sufficient information was supplied by the operator for the Department to conduct an evaluation.

Information expected to be obtained from the survey are:

- Observer Logs
- Navigation (ED50 / WGS84)

- Bathymetry
- Marine Mammal Observer (MMO) Daily Reports
- Survey Outputs - AutoCAD DWG Charts, subbottom profile mapping, Geodatabase/Shapefiles (Seabed Features, Sediments / Isopachs)

PAD Technical has considered all the technical elements of the geological survey application in order to establish the validity of the survey, and have concluded that the data obtained will determine the present depth of surficial sediments and their contact with the underlying chalk to inform the need for any excavation around the jacket piles during jacket removal.

Based on a technical review of the survey programme, it is recommended that approval to conduct a shallow geological survey at the Kinsale Alpha & Bravo platforms (Offshore Petroleum Lease No.1 (OPL1)) covering blocks 48/20, 48/25, 49/16 and 49/21 be granted, subject to the following conditions:

1. All operations shall be conducted in compliance with the provisions of the Rules & Procedures for Manual Offshore Petroleum Exploration Operations (RPM) and shall be carried out between early April and September 2020.
2. The operator/contractor are required to avoid potential cumulative/in-combination effects arising from adjacent regional survey activity, i.e. a minimum of 100km will be maintained between current survey and any other surveys running concurrently. There is to be co-operation between survey activities in the area.
3. In accordance with Section 2.2.4 of the RPM a Fisheries Liaison Officer (FLO) and Marine Mammal Observer (MMO) must be on board the vessel for the duration of the survey.
4. The operator/contractor is required to arrange for a radio navigational warning to be broadcast and ensure that daily position reports are sent to the Irish Coast Guard, MRCC Dublin along with a notification of number of persons on board. The Irish Coast Guard, MRCC Dublin, the Marine Survey Office of the Department of Transport, Tourism and Sport and the Department of Communications, Climate Action & Environment (DCCA) must be notified on the start and completion of operations.
5. The Department is to be informed on the commencement and completion of the survey. Daily progress reports should be sent to DCCA via secure website or by posting to a designated secure website or by emailing (addresses to be advised separately). The operator/contractor is required to make the daily progress reports available to DCCA before

noon each day for the duration of the survey. The final progress report should be sent to the DCCAE.

6. The Department is to be provided with tabulated data on impulsive noise events to be added to the Department of Housing, Planning and Local Government (DHPLG) Impulsive Sound Register. Data to include;
 - Source properties (Hz; SPL, dB re 1 μ Pa @1m; SEL, dB re 1 μ Pa²s @1m);
 - Cumulative hours of active source;
 - Daily/weekly acquisition details (to include line number and date of acquisition);
 - Daily acquisition maps (to include line numbers).

7. All operations must only take place within the proposed working areas as delineated by the 500m exclusion zone highlighted in Figure 2 and described in the documents submitted by PSE Kinsale Energy Limited in March 2020.

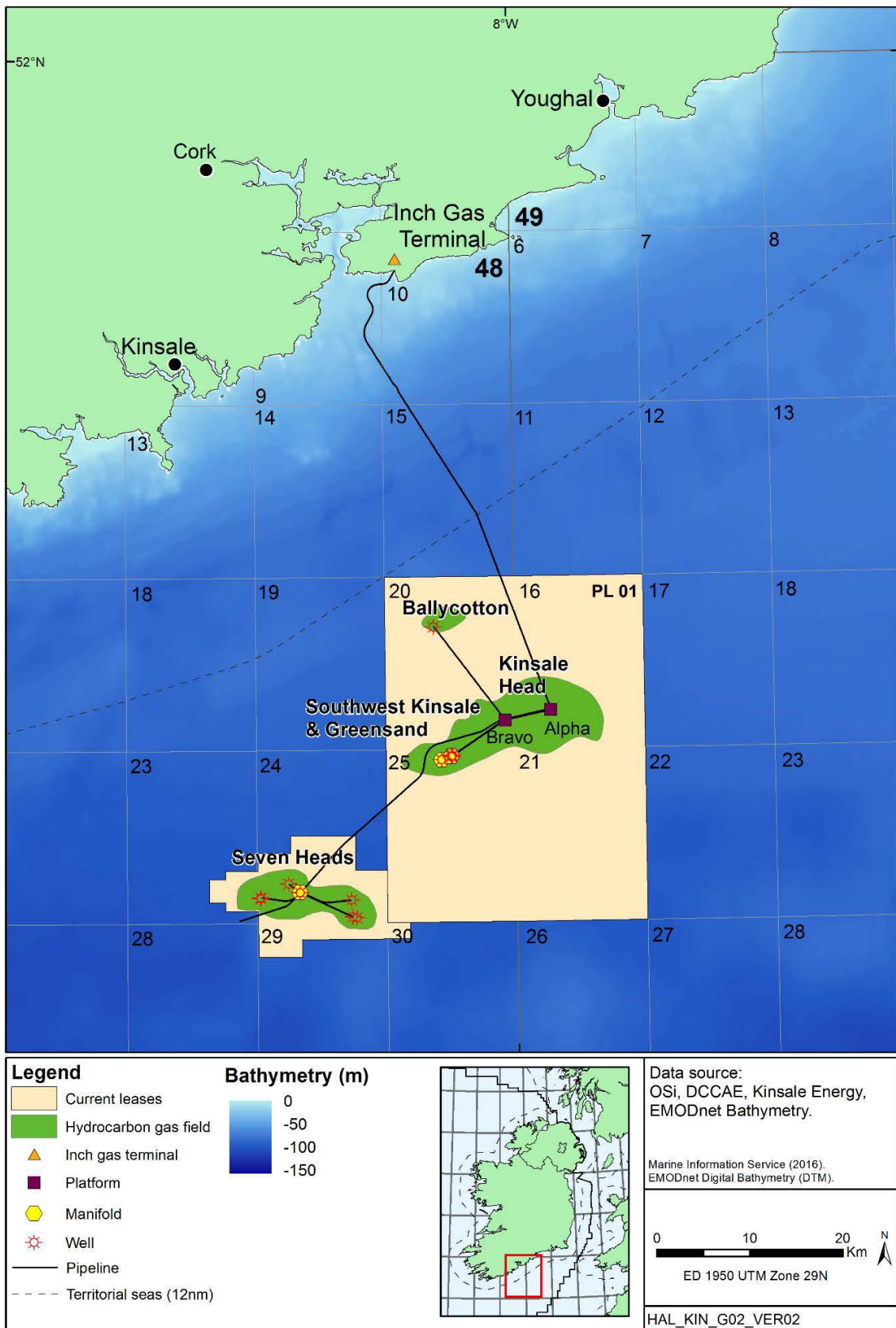


Figure 1: The location map for the Kinsale area fields and facilities. The proposed geological survey will be conducted around the Kinsale Alpha and Bravo platforms.

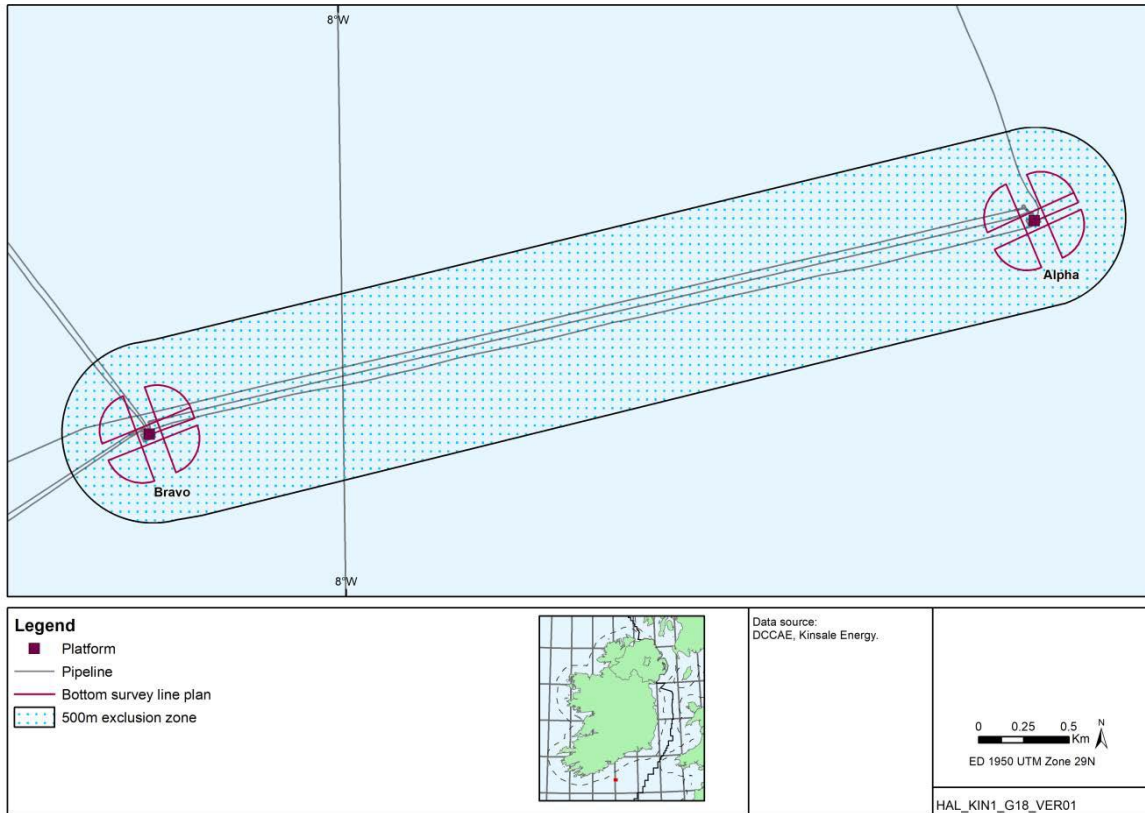


Figure 2: Provisional survey line plan around the Kinsale Alpha and Bravo platforms, including a 500m exclusion zone.

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Petroleum Affairs Division

15th July 2020