



Vermilion E&P Ireland Ltd

# Corrib Marine Mammal Observations

Corrib Inshore Pipeline Inspection Survey 2020

**JUNE 2020**





## RSK GENERAL NOTES

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| <b>Author</b> | <u>K Bentley</u>    | <b>Technical reviewer</b> | <u>E Cooper</u>     |
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# 1 INTRODUCTION

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The Irish Whale and Dolphin Group (IWDG) has been engaged by Vermilion Exploration and Production Ireland Ltd (VEPIL) to provide marine mammal observation services during the inspection of the inshore Corrib gas pipeline.

Marine Mammal Observers (MMOs) are required to be present on vessels at the commencement of noise-generating activities (e.g. geophysical survey and dredging operations) under the code of practice agreed between VEPIL and National Parks and Wildlife Service (NPWS). Records are made of any marine mammals seen before or during inspection operations (which are delayed if marine mammals are sighted within 500m of the noise-generating vessel before it starts work), and reported monthly.

This report presents the survey activity and marine mammal observations during the inshore pipeline inspection survey undertaken aboard the inshore survey vessel *Leah C*, within Broadhaven Bay, Ireland. It was conducted on behalf of VEPIL and represents dedicated monitoring during the survey period from 18 May 2020 to 01 June 2020.

This report covers the inshore Corrib gas pipeline route from approximately KP80 in land; The Corrib Marine Mammal Observations: Field Inspection and Maintenance Survey 2020 report covers the offshore Corrib field and the offshore section of the pipeline and associated facilities. The series of reports will be submitted to the Department of Communications, Climate Action and Environment (DCCAE) and copied to NPWS.

## 2 RECORDS

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### 2.1 Summary

From 21 May until 01 June 2020, daily watches were conducted, weather permitting, for marine mammals by one MMO aboard the inshore survey vessel, *Leah C*, which conducted multi-beam and side-scan SONAR operations within Broadhaven Bay Special Area of Conservation (SAC). These operations utilised multi-beam echo sounder (MBES), sub-bottom profiler (SBP), side scan sonar (SSS) and a suitcase Remotely Operated Vehicle (ROV) with Ultra Short Baseline (USBL) transponders. Records from marine mammal observations during this period are presented in Appendix 1.

Previous survey sightings from the corresponding months of preceding years are included for historical context only, as the durations, locations and hours of effort vary between months and years. No survey took place in 2019. A selection of the best project photographs will be provided in the final (annual) report

### 2.2 Sightings

During May 2020, there were a total of eleven (11) marine mammal sightings comprising two different species: harbour seal (*Phoca vitulina*) and grey seal (*Halichoerus grypus*). There were six (6) sightings in Broadhaven Bay SAC, five (5) in Ballyglass Harbour. Nineteen (19) individual animals were seen during the eleven (11) sightings: eighteen (18) were harbour seals and one (1) was a grey seal.

In previous years during May, effort in Broadhaven Bay SAC resulted in in twenty (20) sightings in 2016, six (6) sightings in 2015, four (4) sightings in 2010 and nine (9) sightings in 2009.

### 2.3 Mitigation

Of the eleven (11) sightings, seven (7) caused a delay to operations, as follows:

- During sighting 1 on 27/05/2020, two harbour seals were observed 150m from the inshore survey vessel, *Leah C*, during pre-watch and caused a delay of 9 minutes to MBES and SSS operations.
- During sighting 3 on 28/05/2020, five harbour seals were observed 250m from the inshore survey vessel, *Leah C*, during pre-watch and caused a delay of 10 minutes to MBES and SSS operations..
- During sighting 4 on 29/05/2020, one harbour seal was observed 150m from the inshore survey vessel, *Leah C*, during pre-watch of the SBP testing and caused a delay of 21 minutes.
- During sighting 6 on 30/05/2020, one grey seal was observed 150m from the inshore survey vessel, *Leah C*, during pre-watch and caused a delay of 30 minutes to SBP operations.
- During sightings 9, 10 and 11 on 31/05/2020, three harbour seals were observed 300m from the inshore survey vessel, *Leah C*, and then two individual harbour

seals were observed 100m and 200m respectively from the vessel during pre-watch for the USBL testing in Ballyglass Harbour, causing a delay of 64 minutes.

Sightings 2 and 5 occurred while the acoustic source was fully operational. Sighting 7 occurred during the soft start procedure and the animal travelled away from the vessel. Sighting 8 occurred during the pre-watch for the USBL testing in Ballyglass Harbour but did not require mitigation due to distance from source.



# **APPENDIX 1 - MARINE MAMMAL OBSERVATIONS (INITIAL PIPELINE SURVEY 2020)**

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### Summary of Marine Mammal Sightings in June and July 2017

| Sighting | Date       | Observer     | Ship / platform name | Species      | Total number | Closest distance of animals from airguns/ source (metres) | Latitude |       | Longitude |       | Mitigation Required | Vessel Activity                |
|----------|------------|--------------|----------------------|--------------|--------------|---|----------|-------|-----------|-------|---------------------|--------------------------------|
|          |            |              |                      |              |              |   | Deg      | Min   | Deg       | Min   |                     |                                |
| 1        | 27/05/2020 | Karl Bentley | Leah C               | Harbour seal | 2            | 150   | 54       | 15.26 | 9         | 53.07 | Y                   | Pre-watch for MBES and SSS     |
| 2        | 27/05/2020 | Karl Bentley | Leah C               | Harbour seal | 1            | 300   | 54       | 17.07 | 9         | 51.56 | N                   | MBES and SSS fully operational |
| 3        | 28/05/2020 | Karl Bentley | Leah C               | Harbour seal | 5            | 250   | 54       | 15.39 | 9         | 53.06 | Y                   | Pre-watch for MBES and SSS     |
| 4        | 29/05/2020 | Karl Bentley | Ballyglass Pier      | Harbour seal | 1            | 150   | 54       | 15.18 | 9         | 53.46 | Y                   | Pre-watch for SBP testing      |
| 5        | 29/05/2020 | Karl Bentley | Leah C               | Harbour seal | 1            | 750   | 54       | 17.03 | 9         | 50.08 | N                   | SBP fully operational          |
| 6        | 30/05/2020 | Karl Bentley | Leah C               | Grey seal    | 1            | 150   | 54       | 17.05 | 9         | 49.52 | Y                   | Pre-watch for SBP              |
| 7        | 30/05/2020 | Karl Bentley | Leah C               | Harbour seal | 1            | 350   | 54       | 17.08 | 9         | 49.62 | N                   | SS of SBP                      |
| 8        | 31/05/2020 | Karl Bentley | Ballyglass Pier      | Harbour seal | 2            | 700   | 54       | 15.18 | 9         | 53.46 | N                   | Pre-watch for USBL testing     |
| 9        | 31/05/2020 | Karl Bentley | Ballyglass Pier      | Harbour seal | 3            | 300   | 54       | 15.18 | 9         | 53.46 | Y                   | Pre-watch for USBL testing     |
| 10       | 31/05/2020 | Karl Bentley | Ballyglass Pier      | Harbour seal | 1            | 100   | 54       | 15.18 | 9         | 53.46 | Y                   | Pre-watch to USBL testing      |
| 11       | 31/05/2020 | Karl Bentley | Ballyglass Pier      | Harbour seal | 1            | 200   | 54       | 15.18 | 9         | 53.46 | Y                   | Pre-watch to USBL testing      |

#### Acronym

MBES: multi-beam echo sounder

SBP: sub-bottom profiler

SS: soft start

SSS: side scan sonar

USBL: Ultra Short Baseline



## Field Notes

Sighting 1: on 27/05/2020, two harbour seals were observed 150m from the inshore survey vessel, *Leah C*, during a pre-watch for MBES and SSS operations; no obvious interaction with vessel; 30 minute delay to soft start required.

Sighting 2: on 27/05/2020, one harbour seal was observed 300m from the inshore survey vessel, *Leah C*, while the MBES and SSS were fully operational; single surface of the animal observed; no mitigation was required.

Sighting 3: on 28/05/2020, five harbour seals were observed 250m from the inshore survey vessel, *Leah C*, during a pre-watch for MBES and SSS operations; no obvious interaction with vessel; 30 minute delay to soft start required.

Sighting 4: on 29/05/2020, one harbour seal was observed 300m from the inshore survey vessel, *Leah C*, during a pre-watch of SBP testing; no obvious interaction with vessel; 30 minute delay to soft start required.

Sighting 5: on 29/05/2020, one harbour seal was observed 750m from the inshore survey vessel, *Leah C*, while the SBP was fully operational; animal static and vessel moving away; no mitigation was required.

Sighting 6: on 30/05/2020, one grey seal was observed 150m from the inshore survey vessel, *Leah C*, during pre-watch for SBP operations; 30 minute delay to soft start.

Sighting 7: on 30/05/2020, one harbour seal was observed 350m from the inshore survey vessel, *Leah C*, during the soft start procedure for SBP operations; animal moving away from vessel; no mitigation required.

Sighting 8: on 31/05/2020, two harbour seals were observed 700m from the inshore survey vessel, *Leah C*, in Ballyglass harbour during the pre-watch for the USBL testing; no mitigation required.

Sighting 9: on 31/05/2020, two harbour seals were observed 300m from the inshore survey vessel, *Leah C*, in Ballyglass harbour during the pre-watch for the USBL testing; possibly the same two individuals as in sighting 8; 30 minute delay to soft start.

Sighting 10: on 31/05/2020, one harbour seal was observed 100m from the inshore survey vessel, *Leah C*, in Ballyglass harbour during the pre-watch for the USBL testing; 30 minute delay to soft start.

Sighting 11: on 31/05/2020, one harbour seal was observed 200m from the inshore survey vessel, *Leah C*, in Ballyglass harbour during the pre-watch for the USBL testing; 30 minute delay to soft start.



### Operations Form – Leah C

| Regulatory reference number | Ship/ platform name | Date       | Reason for firing | Time soft start/ ramp-up began (UTC) | Time of full power (UTC) | Time of start of line (UTC) | Time of end of line (UTC) | Time of reduced output (UTC) (if relevant) | Time airguns/ source stopped (UTC) | Time pre-shooting search began (UTC) | Time search ended (UTC) | Time PAM began (UTC) | Time PAM ended (UTC) | Was it day or night in the period prior to firing? | Was any mitigating action required? | Comments  | Flag record |
|-----------------------------|---------------------|------------|-------------------|--------------------------------------|--------------------------|-----------------------------|---------------------------|--|------------------------------------|--------------------------------------|-------------------------|----------------------|----------------------|--|-------------------------------------|---|-------------|
| INS052020                   | Leah C              | 21/05/2020 | t                 | 9:07                                 | 9:27                     |                             |                           |  | 13:08                              | 8:21                                 | 9:07                    |                      |                      | d  | n                                   | Patch test using MBES followed by SSS           |             |
| INS052020                   | Leah C              | 27/05/2020 | l                 | 7:52                                 | 8:13                     | 8:13                        | 15:29                     |  | 15:29                              | 7:13                                 | 7:52                    |                      |                      | d  | y                                   | Delay of soft start due to sighting in MZ       |             |
| INS052020                   | Leah C              | 28/05/2020 | l                 | 8:00                                 | 8:20                     | 8:20                        | 15:12                     |  | 15:12                              | 7:20                                 | 8:00                    |                      |                      | d  | y                                   | Delay of soft start due to sighting in MZ       |             |
| INS052020                   | Ballyglass Pier     | 29/05/2020 | t                 | 11:25                                | 11:45                    |                             |                           |  | 13:18                              | 10:34                                | 11:25                   |                      |                      | d  | y                                   | SBP test in Harbour, sighting in MZ/Delay of SS |             |
| INS052020                   | Leah C              | 29/05/2020 | l                 | 14:00                                | 14:20                    | 14:20                       | 16:55                     |  | 16:55                              | 13:30                                | 14:00                   |                      |                      | d  | n                                   |   |             |
| INS052020                   | Leah C              | 30/05/2020 | l                 | 8:07                                 | 8:27                     | 8:27                        | 10:00                     |  | 10:00                              | 7:37                                 | 8:07                    |                      |                      | d  | n                                   |   |             |
| INS052020                   | Leah C              | 30/05/2020 | l                 | 11:00                                | 11:20                    | 11:25                       | 12:41                     |  | 12:41                              | 10:00                                | 11:00                   |                      |                      | d  | y                                   | Delay of soft start due to sighting in MZ       |             |
| INS052020                   | Ballyglass Pier     | 31/05/2020 | t                 |                                      | 14:17                    |                             |                           |  | 16:15                              | 12:43                                | 14:17                   |                      |                      | d  | y                                   | USBL test in Harbour, sighting in MZ/Delay of S |             |
| INS052020                   | Leah C              | 31/05/2020 | t                 |                                      | 17:06                    |                             |                           |  | 17:32                              | 16:36                                | 17:06                   |                      |                      | d  | n                                   | USBL Calibration                                |             |
| INS052020                   | Leah C              | 01/06/2020 | l                 |                                      | 9:22                     |                             | 10:16                     |  | 10:16                              | 8:52                                 | 9:22                    |                      |                      | d  | n                                   |   |             |
| INS052020                   | Leah C              | 01/06/2020 | l                 |                                      | 10:46                    |                             | 13:28                     |  | 13:28                              | 10:16                                | 10:46                   |                      |                      | d  | n                                   |   |             |