An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications

CORRIB FIELD: APPLICATION FOR APPROVAL TO CONDUCT AN INSPECTION AND MAINTENANCE SURVEY PROGRAMME OF THE CORRIB OFFSHORE GAS PIPELINE

APPROPRIATE ASSESSMENT DETERMINATION AND ANNEX IV SPECIES ASSESSMENT

I. PROJECT PROPOSAL

Further to the petroleum lease granted to the Corrib Gas Partners pursuant to Section 13 of the Petroleum Act 1960 (**Corrib Petroleum Lease**), a number of additional consents have been granted in respect of the Corrib Gas Field development, the details of which can be found on the DECC website. The consents granted in respect of the Corrib Gas Field development include a consent to operate the Corrib Gas Pipeline, granted in December 2015 pursuant to Section 40 of the Gas Act 1976 as amended , which is subject to a number of conditions, including the following:-

> 20. *'Subsea facilities and flowlines will be subject to annual inspection to ensure that protection measures remain effective and any remedial measures necessary to provide additional protection will be undertaken as soon as practically possible. The first such inspection will be undertaken within the first month from the start of commercial gas production, when the flowlines are at maximum operating pressure and temperature'.*

On 10th December , 2021 Vermillion Exploration and Production Ireland Ltd (VEPIL) (hereafter referred to as Vermillion) submitted an application to the Minister for the Environment, Climate and Communications seeking Ministerial approval to undertake a geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022. A visual survey using an underwater vessel deployed video / and stills camera (nearshore) and ROV (offshore) will also be undertaken.

The application for consent also makes reference to maintenance and repair works that may be required (if any) following the survey works. However, the NIS report only covers survey and inspection, and accordingly any potential maintenance / repair works (if any required) are not considered further in this report. While it is noted that original consent to operate the Corrib Upstream Gas Pipeline (issued by the Minister on 29 December 2015) may provide consent for any required maintenance / repair works, should these be required, it is a matter for Vermillion, the applicant, to ensure that if any consents are required for works that they will apply accordingly for such additional consents and this determination is without prejudice to any requirements that may arise for such application.

The proposed 2022 survey programme will include geophysical and visual inspection of the bulk of the Corrib subsea infrastructure between the Corrib Field and the landfall at Glengad.

The proposed survey programme will comprise two main components:

- Offshore pipeline and subsea structure inspection and maintenance survey work from a suitable ROV support vessel. Previously the survey programme has been carried out using the *Edda Sun*. A similar vessel will be sourced to undertake the survey works. This vessel will be responsible for the survey works covering the area of the Corrib offshore field assets as well as seabed infrastructure as far inshore as Broadhaven Bay.
- Nearshore pipeline inspection using the survey vessel *Leah-C* or similar. This vessel will be responsible for the survey covering the area primarily within Broadhaven Bay as far as the inshore limit of safe navigation.

The offshore and nearshore elements of the survey work programme will investigate features such as free-spanning and scouring, pipeline burial depth and integrity, as well as cathodic protection measures. The survey will be carried out using a combination of acoustic survey techniques (e.g. multibeam echo sounder, sub-bottom profiler, side-scan sonar). In addition, a visual survey using underwater video / camera imagery and ROV will be undertaken.

The vessel is not known at present and will be identified once a survey contractor has been appointed. The vessel will have a similar specification and capabilities to those used in previous years including the *Edda Sun*. The specifications for the *Edda Sun* have been used as a surrogate in this assessment for the activities proposed for 2022.

A smaller multipurpose nearshore vessel will be used to undertake survey work in nearshore areas and this vessel will be identified once a survey contractor has been appointed. The vessel will have a similar specification and capabilities to those used in previous years including the *Leah-C*. The specifications for the *Leah-C* have been used as a surrogate in this assessment for the activities proposed for 2022.

It is estimated that the total data acquisition period for the offshore and nearshore surveys will be approximately 20 days (dependent on weather conditions) with the survey taking place between March and December 2022.

II. DECC ASSESSMENT PROCESS

The Environment Assessment Unit (**EAU**), a functionally separate and independent unit of DECC is responsible for carrying out environmental screening and any environmental assessments determined as being required following screening, in accordance with the requirements set out in Directive 2011/92/EU, as amended by Directive 2014/52/EU (**EIA Directive**) and Directive 92/43/EEC, as amended, (**Habitats Directive**), in the context of applications within an exiting petroleum lease, such as the within application, that seeks Ministerial approval to conduct a survey and inspection of an existing offshore gas pipeline and associated infrastructure.

EIA – In Ireland, environmental assessments of such applications are carried out by the EAU in accordance with the EIA Directive. Where the activities the subject of the application fall outside the projects listed in Annex I of the EIA Directive, an EIA Screening Assessment and Determination is required to be carried out by the EAU in the first instance, as to whether the activities the subject of the application would, or would not be likely to have, significant effects on the environment by virtue, *inter alia*, of their nature size and location. Where it has been determined, following screening, that the activities the subject of the application, are likely to have significant effects on the environment, an environmental impact assessment is required.

AA / Habitats Assessments – The European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended) (**Birds and Natural Habitats Regulations**) give effect to the Habitats Directive as a matter of Irish law and require, inter alia, that a public authority carry out screening for Appropriate Assessment of a plan or project for which an application for consent is received. Where a public authority, following screening, determines that an Appropriate Assessment is required, the Birds and Natural Habitats Regulations require that the assessment carried out by a public authority include a determination pursuant to Article 6(3) of the Habitats Directive as to whether or not the plan or project would adversely affect the integrity of a European site. The EAU is responsible for carrying out Stage 1 AA screening assessments, and any Stage 2 Appropriate Assessment determined as being required following screening, in accordance with the Birds and Natural Habitats Regulations, in respect of applications, such as the present application by the applicant.

On receipt of an application, the Geoscience Regulation Office (**GSRO**) (previously the Petroleum Affairs Division) in the Department of the Environment, Climate and Communications (**DECC**) places the application on the DECC website for consultation and refers the application, and any associated responses to the consultation, to the EAU for the purposes of carrying out its environmental assessments.

On the completion of all environmental assessments by the EAU and after incorporating any suggested conditions which may be recommended by the EAU, the application will then be evaluated by the GSRO in the Department who will make a recommendation to the Minister regarding whether consent should be given for the activities the subject of the application.

III. INDEPENDENT EXPERT ADVISORS

DECC has further engaged Ramboll UK Limited (herein referred to as **Ramboll**) as independent expert environmental advisors to provide advice to the EAU with regard to the carrying out of statutory environmental assessments of applications (such as the within application) within an existing petroleum lease.

Ramboll has conducted an independent assessment of the information provided by Vermillion, having regard to the Habitats Directive, the Birds Directive, the Birds and Natural Habitats Regulations and relevant jurisprudence of the EU and Irish courts. The expert report prepared by Ramboll, having carried out an external review of the Appropriate Assessment Screening and Natura Impact Statement Report and a review of information supplied by Vermillion in regard to the assessment of impacts on Annex IV species contained within the EIA Screening and Environmental Risk Assessment for Annex IV Species Report (both reports prepared by RSK on behalf of Vermillion), is shown at Appendix 1.

IV. LEGISLATIVE BACKGROUND: APPROPRIATE ASSESSMENT PROCESS

The Appropriate Assessment process (AA) is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site. The focus of AA is targeted specifically on Natura 2000 sites and their conservation objectives.

Articles 6(3) and 6(4) of the **Habitats Directive** place strict legal obligations on Member States regulating the conditions under which development that has the potential to impact on European

Sites can be implemented and requiring that an Appropriate Assessment be carried out of plans or projects, not directly connected with or necessary to the management of a site as a European Site, but which are likely to have a significant effect thereon, either individually or in combination with other plans or projects. An AA Screening assessment is carried out to determine whether a plan or project is likely to have a significant effect on a European Site.

- Article 6.3 states: *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

- Article 6.4 states: *"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

  Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

Stage 1: AA Screening

The first step in the AA process is that an AA Screening assessment is carried out to determine whether a plan or project is likely to have a significant effect on a European Site.

In giving effect to the above as a matter of Irish law, the **Birds and Natural Habitats Regulations** provide, *inter alia*, as follows in relation to screening for Appropriate Assessment:-

Regulation 42(1) of the Birds and Habitats Regulations provides: "*A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site".*

Regulation 42(2) provides that: "*A public authority shall carry out screening for Appropriate Assessment under paragraph (1) before consent for a plan or project is given, or a decision to undertake or adopt a plan or project is taken".*

Furthermore the regulations provide under Regulation 42 (6) and 42 (7) that:-

6. The public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of

the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

7. The public authority shall determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.'

Stage 2: Appropriate Assessment

Where it has been determined, following screening, that an Appropriate Assessment is required, Regulation 42(11) provides as follows in relation to the carrying out of an Appropriate Assessment:

> *(11) An Appropriate Assessment carried out under this Regulation shall include a determination by the public authority under this Regulation pursuant to Article 6(3) of the Habitats Directive as to whether or not a plan or project would adversely affect the integrity of a European site and the assessment shall be carried out by the public authority before a decision is taken to approve, undertake or adopt a plan or project, as the case may be.*

Regulation 42(12) sets out the matters required to be taken into consideration by a public authority in carrying out an Appropriate Assessment:

> *(12) In carrying out an Appropriate Assessment under paragraph (11) the public authority shall take into account each of the following matters—*
>
> *a) the Natura Impact Statement,*
> *b) any other plans or projects that may, in combination with the plan or project under consideration, adversely affect the integrity of a European Site,*
> *c) any supplemental information furnished in relation to any such report or statement,*
> *d) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura Impact Statement,*
> *e) any information or advice obtained by the public authority,*
> *f) if appropriate, any written submissions or observations made to the public authority in relation to the application for consent for proposed plan or project,*
> *g) any other relevant information.*

V. VERMILLION APPLICATION: ASSESSMENT PROCESS

Vermillion submitted the following documents with the application submitted in December 2021 (along with a cover letter):-

(i) Application to Conduct an Offshore Survey;
(ii) Corrib Subsea Infrastructure - Inspection and Maintenance Surveys EIA Screening and Environmental Risk Assessment for Annex IV species, dated December 2021, prepared by RSK on behalf of Vermillion;
(iii) Corrib Subsea Infrastructure - Inspection and Maintenance Surveys 2022 Natura Impact Statement, dated December 2021, prepared by RSK on behalf of Vermillion;

V.I Stage 1 AA Screening Assessment

V.I.i Notified Bodies

The following bodies were notified of the application submitted by Vermillion on the 10 December 2021:

- Irish Maritime Administration (IMA), Department of Transport;
- Marine Survey Office, IMA, Department of Transport;
- Maritime Safety Policy Division, IMA, Department of Transport;
- Marine Notices, IMA, Department of Transport
- Ship Source Pollution Prevention Unit, Irish Maritime Administration, Department of Transport;
- Irish Coast Guard (& National Maritime Operations Centre), Department of Transport;
- Sea Fisheries Protection Authority;
- Sea Fisheries Policy Division, Department of Agriculture, Food and the Marine;
- Department of Housing, Local Government and Heritage;
- Development Applications Unit, National Parks and Wildlife Service, Department of Housing, Local Government and Heritage
- Marine Institute;
- Department of Defence;
- Mission Support Facility, Irish Air Corps;
- Naval Headquarters;
- Commission for Regulation of Utilities; and
- Commissioners of Irish Lights.

One response was received as follows: Maritime Safety Policy Division, Department of Transport.

The observations received, and Ramboll's responses are shown in Section 2.3.1 of the Ramboll Report, referenced above and included at Appendix 1.

V.I.ii Public Consultation on the Vermillion Application

The application and accompanying documents were published on the Department website on 23 December 2021 and the public invited to make submissions thereon up to the 8 February, 2022 (the 30 day consultation period was extended due to the Christmas period). No responses were received from the public on this application.

V.I.iii AA Screening Determination

On 10 March, 2022, an AA Screening Determination was made by the EAU pursuant to Regulation 42 of the Birds and Natural Habitats Regulations that a Stage 2 Appropriate Assessment was required in respect of the proposed geophysical and visual survey programme (as described in the Vermillion application) as it could not be excluded on the basis of objective scientific information that the proposed surveys, either individually or in combination with other plans or projects, would have a significant effect on a European Site.

V.II Stage 2 Appropriate Assessment: Public Consultation Process and Ramboll NIS Review Report

The Vermillion application was then subject to a 30 day statutory public consultation (which commenced on 11 March) for the purposes of conducting a Stage 2 Appropriate Assessment. The above referenced notified bodies were also informed and invited to make observations.

V.II.i Observations from Notified Bodies

No additional responses were received from notified bodies.

V.II.ii Observations from the Public

No public consultation responses were received.

V.II.iii Ramboll NIS Review Report

A Natura Impact Statement (NIS) is a scientifically robust examination of a proposed plan or project, which is used to characterise any possible implications of the project individually, or in combination with other plans or projects, on the conservation objectives of any relevant European site(s).

Ramboll carried out a review of the NIS submitted by Vermillion in respect of the proposal to undertake a geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022. A visual survey using an underwater vessel deployed video / and stills camera (nearshore) and ROV (offshore) will also be undertaken as contained in:

- Corrib Subsea Infrastructure - Inspection and Maintenance Surveys EIA Screening and Environmental Risk Assessment for Annex IV species, dated December 2021, prepared by RSK on behalf of Vermillion;

- Corrib Subsea Infrastructure - Inspection and Maintenance Surveys 2022 Natura Impact Statement, dated December 2021, prepared by RSK on behalf of Vermillion;

along with the associated application documents. The Ramboll NIS review and assessment considered the following aspects in the context of European sites (Table 4.3 of Ramboll Report):-

- Conservation status of relevant habitats and species listed under Annex II of the Habitats Directive and Annex I of the Birds Directive;

- Baseline conditions, conservation objectives and qualifying features of any relevant European site(s);

- Any management plans associated with relevant European site(s);

- Details on each species and habitat type for which relevant European site(s) are designated and spatial mapping of the distribution and temporal mapping, including lifestyle stages;

- Information on population profile of the species and their conservation status (e.g. size, population structure etc.);

- Ecosystem structure and functioning of the site and its overall conservation state;

- The role of the site within the ecosystem region and the Natura 2000 network;

- Any other aspects of the site or its wildlife that is likely to have an influence on its conservation status and objectives (e.g. current management activities, other developments etc.)

Furthermore the NIS was also assessed in the context of the following (Table 4.4 Ramboll Report):-

- A description of size, scale and objectives of the proposed plan or project;

- A description of the pressures of the proposed plan or project, and its likely impacts on the conservation objectives and local site characteristics;

- Identification of all European sites located within the zone of influence of the proposed plan or project, together with qualifying interests and conservation objectives;

- Methodologies, analysis and data sources utilised to demonstrate use of best scientific knowledge;

- A scientific assessment, analysis and statement of the significant effects including direct, indirect, cumulative and in combination effects of the relevant European site(s) and/or species which are expected to occur as a result of the development;

- Details of any appropriate mitigation measures undertaken, or proposed to be undertaken by the applicant to mitigate any significant effects on the environment or on the European site(s) and/or species, and the period within which any such measures shall be carried out by the applicant developer;

- An assessment of the scope and scale of residual effects after mitigation (including direct, indirect, cumulative and in combination effects);

- A conclusion in relation to whether or not the project would adversely affect the integrity of any European site (either individually or in combination with other existing or consented developments).

The Ramboll AA Screening and NIS Review Report is at Appendix 1 to this Determination.

VIII. APPROPRIATE ASSESSMENT DETERMINATION

I have carefully considered the following documents in carrying out an Appropriate Assessment of the proposal to undertake a geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022 as detailed in the Vermillion application:-

- Documents provided by the Applicant:

    - Notification of Application to Conduct an Offshore Pipeline Survey and Inspection/Maintenance of the Offshore Facilities in 2022. Submitted by Vermillion Exploration and Production Ireland Ltd on 10 December (Cover letter);
    - Application to conduct an offshore survey form. Completed by Vermillion Exploration and Production Ireland Ltd;
    - Corrib Subsea Infrastructure - Inspection and Maintenance Surveys EIA Screening and Environmental Risk Assessment for Annex IV species, signed and dated 8th December 2021, prepared by RSK on behalf of Vermillion;
    - Corrib Subsea Infrastructure - Inspection and Maintenance Surveys 2022 Natura Impact Statement, signed and dated 8th December 2021, prepared by RSK on behalf of Vermillion

- Statutory Environmental Assessment : Appropriate Assessment Screening and NIS Review for Vermilion Inspection/Maintenance of Pipeline and Subsea Structures 2022 prepared by Ramboll (Ramboll Report; included at Appendix 1);

- EIA Screening determination for the application for approval to conduct an inspection and maintenance survey programme of the Corrib Offshore Gas Pipeline (8 March, 2022);

- Observation received from notified body;

- Submissions were received during the public consultation process. As no submissions were received, none were taken into account.

As set out above, Vermillion submitted with their application a Natura Impact Statement (NIS), examining the possible implications of the proposed offshore pipeline and subsea structure inspection, repair and maintenance programme on relevant European Sites. The NIS report only covered survey works, and accordingly any potential maintenance / repair works (if any required) are not considered further in this determination.

As Likely Significant Effects (LSE) associated with underwater noise generated from the acoustic surveys and associated vessel activity on key receptor species (qualifying interests) could not be ruled out at AA Screening Stage, the NIS provides an assessment of underwater noise impacts generated by the acoustic surveys and associated general vessel activity, on European sites' qualifying interest species, and whether these impacts affect the conservation objectives of any European sites and thus adversely affect the integrity of these sites. The potential for LSE on habitats was screened out.

The NIS further considers impacts from the survey vessels in terms of standard emissions and discharges during operation, which will be managed in line with the Maritime Registry of Shipping (MRS), MARPOL 73/78 Annex VI (as appropriate) and other similar requirements.

Consideration is also given to accidental fuel oil / chemical spillages, where adherence to best practice protocols and procedures to mitigate against accidental spills will apply.

Based on careful consideration of the information contained in the above referenced documents:

- I agree with and adopt the conclusions reached in the Ramboll Report regarding the adequacy of the information provided by Vermillion with regard to European sites and/or species that may be affected by the proposed geophysical and visual survey programme of the Corrib offshore facilities, to be carried out between the months of March and December 2022, and agree with the Ramboll conclusion that sufficient information has been provided by the applicant to be able to complete the Stage 2 Appropriate Assessment.

- I further agree with and adopt the Ramboll responses to the observation received from Notified Body, set out in section 2.3.1 of the Ramboll Report. Section 5 of the Ramboll Report sets out appropriate mitigation and management commitments, which address any issues raised in the observations of relevance to the Appropriate Assessment process.

- I note the mitigation and management measures committed to by Vermillion (described in the NIS submitted as "industry standard best environmental practice protocols"), which include soft starts, the use of Marine Mammal Observers (MMO's), and following the guidance in the Vessel Operators Code-of-Conduct (Document No. VIE-HS-PR-0032, 2020). Vermillion has further committed to adherence to the requirements specified in the NPWS Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (DAHG, 2014) and compliance with ship – source pollution prevention requirements specified in MARPOL 73/78 in respect of management of standard emissions and vessel discharges, as well as the implementation of best practice protocols and procedures to mitigate against accidental spillages of fuel or chemicals. The NIS concludes (following an evaluation of the relevant information, including the nature of the predicted impacts and with the implementation of these measures), that the proposed survey operations will not individually or when taken in combination with other plans or projects adversely affect the integrity of any European site or on any other designated site and the is no reasonable doubt in this regard.

- I agree with and adopt the Appropriate Assessment Screening and NIS Review Report prepared by Ramboll in respect of the Vermillion application (attached as Appendix 1 to this Determination) and the conclusions reached in that Report, following examination, analysis and evaluation of the information submitted by Vermillion, that the proposed surveys (as described in the Vermillion application), alone or in combination with any other plan or project, will not have an adverse effect on the environment or on the integrity of any European site in view of its conservation objectives, subject to the implementation of the mitigation measures described in Section 5 of the Ramboll Report.

- Accordingly, I am satisfied and have decided that the proposed geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022. (as described in the Vermillion Application), alone or in combination with other plans or projects, will not adversely affect the integrity of any European sites, in view of the sites' conservation objectives, subject to the implementation of the mitigation measures referred to in Section 5 of the Ramboll Report, which I adopt and set out in Table 1 to this Determination (below). This Determination is contingent on the inclusion of these mitigation measures as conditions to any consent that may be granted in respect of this Vermillion application.

IX. ANNEX IV SPECIES ASSESSMENT: LEGISLATIVE BACKGROUND

Article 12 of the Habitats Directive provides that:

> *"Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting:*
> (a) *all forms of deliberate capture or killing of specimens of these species in the wild;*
> (b) *deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;*
> (c) *deliberate destruction or taking of eggs from the wild;*
> (d) *deterioration or destruction of breeding sites or resting places."*

Regulation 29 of the Birds and Natural Habitats Regulations transposes Article 12 into Irish law and provides that:

> *"29. (1) Where the Minister has reason to believe that any activity, either individually or in combination with other activities, plans or projects, is of a type that may—*
>
> *(a) have a significant effect on a European Site,*
> *(b) have an adverse effect on the integrity of a European Site,*
> *(c) cause the deterioration of natural habitats or the habitats of species or the disturbance of the species for which the European Site may be or has been designated pursuant to the Habitats Directive or has been classified pursuant to the Birds Directive, insofar as such disturbance could be significant in relation to the objectives of the Habitats Directive,*
> *(d) cause pollution or deterioration of habitats within the meaning of the second sentence of Article 4(4) of the Birds Directive, or*
> *(e) have an adverse effect on the conservation status of—*
>
> *(i) animal species listed in Annex IV(a) to the Habitats Directive in their natural range pursuant to Article 12 of the Habitats Directive,*
> *(ii) plant species listed in Annex IV(b) to the Habitats Directive pursuant to Article 13 of the Habitats Directive,*
> *(iii) species of wild fauna and flora listed in Annex V to the Habitats Directive pursuant to Article 14 of the Habitats Directive,*
> *(iv) naturally occurring birds in the wild state,*
>
> *the Minister shall, by notice, subject to paragraph (2), where he or she considers appropriate, direct that the activity shall not be carried out, caused or permitted to be carried out or continue to be carried out by any person in the European Site or part thereof or at any other specified land or may restrict or regulate the activity in the European Site or part thereof or at any other specified land, and each such notice shall be accompanied by a statement of the Minister's reasons for making the decision."*

X. ANNEX IV SPECIES ASSESSMENT: DETERMINATION

The NIS submitted cross refers to the EIA Screening and Environmental Risk Assessment for Annex IV Species Report that was included with the application, which provides further characterisation of the baseline for Annex IV species of marine mammals and sea turtles in the area, with other qualifying features screened out. The potential effects of underwater noise generated from the acoustic surveys and associated vessel activity were assessed for these species.

Ramboll carried out an assessment of the information submitted by Vermillion for the purposes of Article 12 / Annex IV of the Habitats Directive. The Ramboll Report further concludes that the proposed geophysical and visual survey programme (as described in the Vermillion application) will not cause any significant disturbance to the Annex IV species described, subject to the implementation of the mitigation measures set out in Section 5 of the Ramboll Report.

Having considered the information submitted by Vermillion as regards the assessment of impacts on Annex IV species and the analysis and evaluation contained in the Ramboll Report, I agree with and adopt the conclusions in the Ramboll report in relation to impacts on Annex IV species.

Accordingly, I am satisfied that the assessment for Annex IV Species is of an acceptable standard and am further satisfied that the proposed geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022 will not cause any significant disturbance to, or adverse effect on the conservation status of, any Annex IV species that may be present in the area, subject to the implementation of the mitigation measures adopted above (and outlined in Table 1 to this Determination), and which must be included as conditions to any consent that may be granted in respect of the Vermillion application.

XI. CONCLUSION

Having considered the documents submitted by Vermillion, the observations received from a Notified Body on the application, and the expert report prepared by Ramboll (having carried out a review of the information submitted by Vermillion having regard to the Habitats Directive, the Birds Directive and the Birds and Natural Habitats Regulations) and having adopted the conclusions reached in the Ramboll Report, it can be concluded, and I conclude, for the purposes of Article 6(3) of the Habitats Directive and Regulation 42(11) of the Birds and Natural Habitats Regulations, that the proposed geophysical and visual survey programme of the Corrib offshore gas pipeline, sections of the umbilical, Bellanaboy Bridge Gas Terminal (BBGT) treated surface water outfall pipeline, and infield flowlines and umbilicals between the Corrib Field manifold and the landfall at Glengad, northwest Co. Mayo, between the months of March and December 2022 (either individually or in combination with any other plans or projects) will not adversely affect the integrity of any European sites , in view of the sites' conservation objectives, subject to the implementation of the mitigation measures adopted and outlined in Table 1 (below), which must be included as conditions to any consent that may be granted in respect of the Vermillion application.

I further conclude that the assessment of impacts on Annex IV species is of an acceptable standard and I am satisfied that should consent be granted in respect of the Vermillion Application, the proposed geophysical and visual survey programme (as described in the Vermillion Application) will not cause any significant disturbance to, or adverse effect on the conservation status of, any Annex IV species that may be present in the area, subject to the implementation of all the mitigation measures adopted in Table 1 below, which must be included as conditions to any consent that may be granted in respect of this application.

The mitigation measures adopted and outlined in Table 1 (below) are additional to those set out in the EIA Screening Determination made on 8 March 2022. For the avoidance of doubt, both the mitigation measures set out in Table 1 (below) and the mitigation measures contained in Table 1 to the EIA Screening Determination must be included as conditions to any consent that may be granted in respect of this application.

Further, the requirement specified in the EIA Screening Determination that Vermillion must seek prior Department approval for the vessel(s) to be used must also be included as a condition to any consent that may be granted in respect of this application.

The Applicant will be informed of this Determination and it will be published on the Department's website and notice thereof will be published in a national newspaper.

Jean Clarke, 3rd May , 2022

Jean Clarke

Environmental Assessment Unit,
Department of the Environment, Climate and Communications

Judicial Review

Please note that the validity of this Appropriate Assessment Determination / Annex IV Species Assessment may be questioned by Judicial Review under Order 84 of the Rules of the Superior Courts (S.I. No.15 of 1986), as amended. Any application for leave to apply for judicial review must be made promptly and in any event within three months from the date of the Determination. Practical information on judicial review can be obtained from the Citizens Information Board, Ground Floor, Georges Quay House, 43 Townsend Street, Dublin 2 or online (www.citizensinformation.ie) or from the Courts Website (www.courts.ie).

Table 1 Mitigation and Management Measures

Discipline	Commitment proposed
General Mitigation	Use of the lowest equipment output possible in order to obtain the required data quality
	At the start of proposed activities, power will increase slowly from a low intensity (a 'soft start') to encourage avoidance reactions by marine mammals, fish and marine reptiles.
	A qualified and experienced Marine Mammal Observer (MMO) will be present onboard both the nearshore and offshore geophysical survey vessels. • The MMO will have undergone marine mammal observation training (JNCC or equivalent) and have spent a minimum of six weeks of marine mammal survey experience at sea over a three-year period; • The MMO will be responsible for monitoring the appropriate mitigation zone during survey operations; • The MMO must submit a report, as outlined in NPWS code of practice, within 30 days of completion of the proposed activities to the relevant Licensing Authority, and copy the report to the NPWS; • The geophysical vessel operator must provide a report (including a daily log) on the operation of survey equipment that will indicate the soft starts and their duration to the MMO. This information will be made available to NPWS; and • The MMO must use a distance measuring stick, reticle telescope or binoculars to ascertain distances to marine mammals.
	Adherence to Vessel Code of Conduct for Inspection and Maintenance Surveys (Document No. VIE-HS-PR-0032, 2021).
Cetaceans, seals and other marine megafaunal species	Pre soft start scans (pre-start monitoring) • Sound-producing activities will only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible. Effective visual monitoring determines the presence or absence of megafaunal species before sound-producing activities commence, and should be undertaken in good weather conditions, where the sea state is low and visibility is good (no fog, heavy rain). • MMOs should survey the area for the presence of species 30 minutes before the onset of the soft start. • A minimum distance of 500 m is required between the centre of the sound source and the nearest species before soft start can commence. • If species are seen within 500 m of the centre of the sound source the start of the sound source(s) should be delayed until they have moved away, allowing adequate time after the last sighting for the animals to leave the area (30

Discipline	Commitment proposed
	minutes). • An agreed and clear on-site communication signal must be used between the MMO and the Works Superintendent as to whether the relevant activity may or may not proceed, or resume following a break (see below). It shall only proceed on positive confirmation with the MMO. • Soft start should commence after a 500 m area around the vessel has been confirmed clear of species for 30 minutes
	Soft start / ramp up procedure • In commencing an acoustic survey operation using the above equipment, the following soft start (or ramp up) must be used, including during any testing of acoustic sources, where the output peak sound pressure level from any source exceeds 170 dB re: 1µPa @1m: a) Where it is possible according to the operational parameters of the equipment concerned, the device's acoustic energy output shall commence from a lower energy start-up (i.e., a peak sound pressure level not exceeding 170 dB re: 1µPa @1m) and thereafter be allowed to gradually build up to the necessary maximum output over a period of 20 minutes. b) This controlled build-up of acoustic energy output shall occur in consistent stages to provide a steady and gradual increase over the ramp-up period (e.g., output peak sound pressure level of 170 dB->180dB->190 dB->200 dB->200+ dB over 20 minutes). c) Where the acoustic output measures outlined in steps (a) and (b) are not possible according to the operational parameters of any such equipment, the device shall be switched "on" and "off" in a consistent sequential manner over a period of 20 minutes prior to commencement of the full necessary output. • In all cases where a ramp up procedure is employed the delay between the end of ramp-up and the necessary full output should be minimised to prevent unnecessary high-level sound introduction into the environment. • Once the ramp up procedure commences, there is no requirement to halt or discontinue the procedure at night-time, nor if weather or visibility conditions deteriorate nor if species occur within a 500 m radial distance of the sound source, i.e., within the Monitored Zone.
	Break in sound input • If there is a break in sound output for a period greater than 30 minutes (e.g., due to equipment failure, shut-down, survey line or station change) then all pre-start monitoring and a subsequent ramp up procedure (where appropriate following pre-start monitoring) must be undertaken. • For higher output survey operations which have the potential to produce injurious levels of underwater, there is a regulatory requirement to adopt a shorter 5 - 10 minute break limit after which period all pre-start monitoring and subsequent ramp up procedure (where appropriate following pre-start monitoring) shall recommence as for start-up.
Emissions	Regular maintenance of all onboard engines to minimise emissions,

Discipline	Commitment proposed
	in line with: • Maritime Registry of Shipping (MRS); • MARPOL 73/78 Annex VI (as appropriate); and • Any other similar requirements.
Discharges Measures are in line with ship-source pollution prevention provisions, as required by the Department of Transport	Management of discharges in accordance with the requirements of MARPOL 73/78 as appropriate, with the biochemical oxygen demand of sewage and galley waste discharges reduced to 50 mg/l and macerated to less than 25 mm, using a treatment process before release.
Accidental Events	Refuelling of vessels will not be undertaken at sea, but in port where spills, although unlikely to happen, can be responded to more easily, and will reduce the risk of any exposure to marine life. The fuel to be used by vessels is regular marine grade oil (MGO) and not heavy fuel oil (HFO) that could represent a greater environmental hazard if spilled
	The vessels will operate with strict safety, navigational, operating and communications procedures in place in order to avoid collisions. These will include use of Automatic Identification System (AIS) tracking, adherence to the Collision Regulations, communication with other vessels, and 24 hour look ahead plans
	The offshore survey vessel has a deck drainage containment and separation system in the event of a spill of oil on deck. Hydraulic fluids used by the ROV and ROV handling equipment have been selected partly based on their environmental credentials, being inherently rapidly biodegradable and having passed stringent LC 50 and EC 50 tests to determine their toxicity to aquatic life. • Onboard the vessel, the valves between fuel tanks will be kept closed, thereby minimising potential for complete fuel loss. Refuelling will occur according to a specific procedure; and • Maintenance, audits and inspection plans will be in place to mitigate the potential risk of an oil leak at an early stage.
	Shipboard Oil Pollution Emergency Plans (SOPEP), spill mitigation equipment and other facilities are kept onboard all vessels in order to contain or minimise spills; all the vessel crews have been trained in the use of the plans and equipment.
	The Emergency Response Plan will set out how all spill response resources (personnel, command structure, equipment, etc.) will interface, including co-ordination between other seismic survey operators, if applicable.
Interactions with other users (including fisheries)	Communication between operators will ensure that operations are coordinated to limit noise exposure.
	There will be fisheries liaison procedures in place to mitigate interaction with fisheries or other maritime organisations to communicate the survey schedule and enable activities to be planned accordingly.