

# ERRATA

The following references relate to Vol. 1 of the EIS.

## Chapter 5

The references to fencing designed to attenuate construction noise and reduce light spillage and visual impact should be moved from Sections 5.4.3 and 5.5.3.2 to Section 5.5.3.1 as follows:

### Section 5.4.3

The last sentence should be deleted.

### Section 5.5.3.2

Second last paragraph should be deleted.

Section 5.5.3.1 is revised as:

Second last paragraph is revised as follows:

A fence comprising a 3m high non-transparent noise barrier will be installed around the perimeter of the compound and inside the palisade fencing in tandem with the stone placement works. This barrier will be designed to mitigate the potential noise emissions from the works in the compound. It will also serve to visually screen the works.

References to Figure 5.2 in the following sections of Vol. 1 of the EIS: 5.4.8, 5.7.1, 5.9, 8.4.3.1, 10.2 & 12.5.1.1 under 'Construction Areas and Protection of Habitats' should be amended to instead refer to Figure 5.1.

In the third paragraph of Section 5.10.1, the reference to road haulage activities between 07:00hrs and 16:00hrs on Saturdays should instead refer to between 08:00hrs and 16:00hrs on Saturdays.

The last sentence in the first paragraph of Section 5.4.3 should state:

In some areas (e.g. the tunnelling compound at na hEachú (Aghoos)), temporary fencing will be specially designed to reduce light spillage and visual impact.

The impact description outlined in the third paragraph of Section 6.6.1 should refer to a slight and short-term adverse impact instead of a slight and temporary adverse impact.

## Chapter 7

Section 7.5.3.1, the last paragraph on Page 7-18 should state:

In terms of personnel trips, it is proposed that a significant number of staff will be transferred to the site compounds at Na hEachú (Aghoos) and Gleann an Ghad (Glengad) using shuttle buses.

Section 7.6.2.1, first bullet point on Page 7-32 should state:

To avoid the possible conflict between HCV movement and pedestrian movement at Poll an tSómais (Pollatomish) National School, HCV trips will be restricted to/from Gleann an Ghad (Glengad) during school opening and closing time periods.

Section 7.6.2.1, last bullet point on page 7-31 should state:

It is proposed that a mini-bus service will be implemented to bring site operatives to and from the construction sites to minimise personnel traffic impact. The traffic impact assessment also provides for some car and light commercial vehicle movements to and from the sites, where appropriate parking will be provided within the compounds.

## **Chapter 8**

In Section 8.4.4.2, the restoration time for the disturbed peat has been assumed to be 2 years. This figure has been revised and it is now considered that a period of 7 years is more applicable to cover the period where the peat is disturbed (2 year construction period) and the time taken for the peat to restore fully to pre-construction conditions (approx 5 years). This period is consistent with the assessment presented in Section 12.6.1 of Volume 1 of the EIS. Consequently, data provided in Tables 8.8, 8.9 & 8.10 and subsequent text has been corrected as highlighted in bold and underlined in the following:

**Table 8.8** Input Data for Corrib Onshore Pipeline Carbon Losses Calculator

Parameter	Description	Approx. Value
$A_{\text{direct}}$	Area of Peat directly disturbed by construction	6.512 ha
$A_{\text{indirect}}$	Area of Peat where drainage may be affected by construction (construction site with 100m (max impact) drainage impact boundary).	70.542 ha
$A_{\text{forest}}$	Area of trees felled	3.5 ha
$V_{\text{direct}}$	Volume of Peat removed during construction.	75,000 m <sup>3</sup>
T	Time – is the time to restoration (years) which is assumed to be <u>2 years for construction and 5 years for restoration</u>	<u>7 years</u>

**Table 8.9** Summary of Carbon Losses from the Corrib Onshore Pipeline

Item	Carbon Losses (tCO <sub>2</sub> eq)
Loss of Carbon Fixing Potential of Peat Lands	<u>496</u>
Changes in Carbon Stored in Peat Lands – Removed Peat	0
Changes in Carbon Stored in Peat Lands – Drained Peat	<u>10,711</u>
Loss of Carbon Dioxide due to Leaching of Dissolved and Particulate Organic Carbon	<u>2,678</u>
Loss of Carbon due to Peatslide	0
Loss of Carbon due to Forestry Clearance	92
Carbon Dioxide Saving due to Improvement of Peat Land Habitat	0
<b>Total Carbon Losses</b>	<b><u>13,977</u></b>

This assessment indicates that carbon losses from the disturbance of peat during the construction and restoration of the onshore pipeline amount to **13,977** tonnes CO<sub>2eq</sub>. Based on the fact that the highest predicted emissions are from drained peat and the worst case assumption for area affected by peat drainage, this figure can be considered a worst-case carbon loss from the project.

**Table 8.10:** Summary of Greenhouse Emissions for Construction (Tonnes of Carbon Dioxide Equivalent).

Item	Estimated GHG Emissions (tCO <sub>2</sub> eq) <sup>1</sup>
Quarried Material	2,043
Concrete, Mortars, Cement	12,405
Metals (pipeline steel) <sup>2</sup>	5,956
Plant Emissions	1,464
Peat Removal	<u>13,977</u>
Material Transport	4,451
Personnel Transport	212
TOTAL	<b><u>40,508</u></b>

1. Tonnes Carbon Dioxide Equivalent

2. Already Fabricated

The results indicate that the main greenhouse gas emissions are from the precast concrete segments and materials (bentonite, grout, etc.) used in the tunnelling, production of the pipeline steel (already fabricated) and the transport of materials to the site. The total estimated greenhouse gas emissions associated with the proposed construction is calculated at **40,508** tonnes of CO<sub>2eq</sub>.

## Chapter 9

In Chapter 9, Vol. 1 & Appendix H1, Vol. 2, the position of the noise monitoring location denoted as N3 on Figures 9.1a and 9.1b in Chapter 9 (Vol. 1) and Figures 3.1a and 3.1b of Appendix H1 (Vol. 2) is shown incorrectly. Monitoring was not carried out at this location, but instead at a location approximately 350m to the North West, of the position originally mapped, towards Glengad. However, noise predictions are provided for the noise sensitive receptor N3, at the position shown on the aforementioned figures in Chapter 9 and Appendix H1 of the EIS, prepared in May 2010.

In Table 15.3, Section 15.4.3, the 'Impact Description' Column Rows 4 and 5 titled 'Placement of stone road' should instead be titled 'Placement of 9m or 12m wide stone road and construction compounds'.

In Section 15.4.4, bullet point 3 should refer to Figure 15 of Appendix M6 instead of Figure 16.

'Where possible' should be added to the beginning of the 1<sup>st</sup> bullet point on Page 15-27 in Section 15.4.4.

The last sentence of the 4<sup>th</sup> paragraph 'Peatland Hydrology' in Section 15.7, should state 'recovering eroded blanket bog' instead of 'recovering blanket bog'.

The second last sentence of the 3<sup>rd</sup> paragraph in Section 16.6.2.2 should state:

In one instance a couple of hazelnut shell fragments were identified, but were not assessed as they were mislaid while stored.

Figure 17.1 should show the construction of the gas terminal finishing at the end of 2010.

The following references relate to Vol. 2 of the EIS.
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### **Appendix F, Book 2**

Section 7.2.2, second bullet point on Page 52 should state:

It is proposed that a mini-bus service will be implemented to bring site operatives to and from the construction sites to minimise personnel traffic impact.

### **Appendix M2, Book 5**

In the Report Summary, note 2 in the Table 'Ground Stability Assessment – General' should state:

Detailed assessment of ground movement that may affect the pipeline within the tunnel has been carried out by tunnel advisors DelaMotte.

Incorrect references to watercourses should be amended in Section 7.7 (Page 178), Point 10, as follows:

(a) Watercourses Nos.1 and 6 do not cross the pipeline route.

(b) Watercourses Nos. 3, 4 and 5 cross the pipeline route. Where these watercourses cross the pipeline route the pipeline is within an infilled concrete lined tunnel buried at depth.

In Section 7.7, Page 178, Point 11 should refer to RPS Drawing No. Dg0702 and not the J P Kenny Drawing.

Watercourse no. 4 should be included in Point 13 (b) in Section 7.7 (Page 179).

In the 'General' column in Table 1 of Section, 7.6 (Page 176), it is incorrectly stated that Channel 05 does not intersect the onshore pipeline. Channel 05 does intersect the onshore pipeline.

Section 2.8 'Summary of Findings' Point No. 8 is incorrect and should be deleted from this section.

### **Appendix M6, Book 5**

In Section 1.5. 'and EPA, 2003' should be added to the end of the title of Table 1.1.

In Section 2.1, bullet point no. 2 should also refer to consultation with the National Parks and Wildlife Service (NPWS)

Point 8 in the EIS Phase 2 box in Section 2.4 (Page 7) incorrectly refers to Section 1.1.5 instead of Section 1.5.

The reference to Section 5.5.1 in Bullet Point 2 of Section 3.2 (Page 8) should instead refer to Section 5.4.5.

The reference to Section 6 in the last paragraph of Section 3.2 (Page 9) should instead refer to Section 5.

The second sentence of the first paragraph in Section 4.2.1.2 (Page 19) should state 'partly grass covered' instead of 'partly grazed covered'.

The reference to Figure 8 in Section 4.2.1.5 (Page 22) should instead refer to Figure 9.

Amendments have been made to the following sentences in Section 4.2.2, Page 24:

There is an area of wet grassland adjacent to the river and then a short area of cutover bog (which forms part of the wet grassland habitat).

This is followed by a stretch of approximately 190m of recovering eroded blanket bog. It is this area of bog that is of most interest and it is this area which is discussed in detail below.

Ground to the west comprises mainly wet grassland habitat and falls away to the Leenamore River.

The second sentence in the second last paragraph in Section 4.2.3.5 (Page 31) should state:

At a local scale, the piezometric surface is slightly impacted by the stone road as well as the road stream (S1 on Figure 5).

Section 5.2, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence 'construction active areas' should instead be referred to as 'active construction areas'.

In Section 5.2.2, bullet point 5 should refer to the northeastern boundary instead of the northwestern boundary.

In Table 6.1 references to eroding blanket bog (PB5) regarding 'PH1' & 'PH5' in the 'Potential Impacts' and 'Residual Impacts' column should instead refer to recovering eroded blanket bog (PB5/PB3).

Table 6.1, Page 50, 'PH1', Residual Impacts column, 3<sup>rd</sup> paragraph should state:

Aghoos compound: Direct, negative, imperceptible, short-term impact on heavily eroded blanket bog/severely eroding blanket bog with wet acid grassland/Old cutover.

Direct, negative, imperceptible, short-term impact on adjacent recovering eroded blanket bog.

In Table 6.1 references to eroding blanket bog (PB5) regarding 'PH3' and 'PH5' in the 'Potential Impacts' column and the 'Residual Impacts' should instead refer to recovering eroded blanket bog (PB5/PB3).

Table 6.1 (Page 52), the residual impact for 'PH6' should state:

Negative, imperceptible, low probability impact on surface water quality.

#### **Appendix M7, Book 5**

Section 5.3, (A), Page 13, 5<sup>th</sup> paragraph, 2<sup>nd</sup> sentence should state:

All flows collected in the channels will be drained to settlement lagoons via by-pass separators (to remove any hydrocarbons in the unlikely event of a spill). Water in the settlement pond will then be pumped to SC1 for further treatment and discharge. No pumping will occur at night time.

Section 5.3, (A), Page 14, 1<sup>st</sup> paragraph should state:

The settlement lagoon and the by-pass separator will be installed at the beginning of the compound setting up so that the 'dirty' surface runoff in the Initial Construction Stage will be treated prior to pumping to SC1, where further treatment will occur prior to discharge.

Section 5.3, (A), Page 14, 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence should state:

The pumped water will be discharged into the settlement lagoon. Settlement of solids will occur in the settlement lagoon, and then the water will be pumped to SC1 for further treatment prior to discharge via a by-pass separator.

Section 5.3, (B), Page 14, 1<sup>st</sup> paragraph should be deleted.

Section 5.3, (B), Page 14, 5<sup>th</sup> paragraph should be deleted.

Section 6.3, Page 16, points (2) and (4) should state:

(2) To provide a network of open collection channels to convey 'dirty' water to the settlement lagoon.

(3) To provide appropriate treatment, including a settlement lagoon and by-pass interceptor, to treat potentially 'dirty' surface water runoff prior to pumping to SC1 for further treatment and discharge. Pumping will only occur during the day.

(4) To provide a sump pump to pump out all water from the tunnelling reception shaft. During general operation pumped water will be discharged into the settlement lagoon (for pumping to SC1 for further treatment and discharge). During the arrival of the TBM at the reception pit water will be pumped into a tank for collection and removal off site to an authorised treatment facility.

The following references relate to Vol. 2 of the EIS.
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#### **Appendix Q2.1, Book 6**

In Section 2.2.1, 4<sup>th</sup> paragraph, the length of the pipeline route from Glengad to Aghoos should be 4.9km.

In Section 2.2.2, 4<sup>th</sup> paragraph, the reference to Appendix S should instead refer to Chapter 5, Vol 1:

#### **Appendix Q4.1, Book 6**

In Section 6.1, the 4<sup>th</sup> paragraph incorrectly refers to Figure 3 instead of Figure 4.2.

In Section 6.2, the 2<sup>nd</sup> paragraph should state:

Onshore, two of the umbilicals (No's 1 and 2) carry the electrical power supply cables, data communications cables, hydraulic fluid pressure lines and methanol lines. The third umbilical (No 3) carries two supply lines for treated produced water disposal and a spare cable.

#### **Appendix Q4.4, Book 6**

In Section 2.1, the reference to the 'dual fail safe inline safety shutdown valves' should be amended to refer to 'dual, fail closed, inline safety shutdown valves'.

#### **Appendix Q4.5, Book 6**

In Section 1, Table 1.1, the reference to Point (2), An Bord Pleanála Letter, 2<sup>nd</sup> November 2009 should be changed to Point (g), An Bord Pleanála Letter, 2<sup>nd</sup> November 2009.

In Section 7.4, the end of the 4<sup>th</sup> paragraph should be amended from 'would be temporary fenced off during venting' to 'would require to be fenced during venting'.

#### **Appendix Q4.6, Book 6**

In Section 1.2.2, the sentence 'It is initiated on closure of the LVI safety shutdown valves' in the first paragraph should be deleted.

#### **Appendix Q4.7, Book 6**

In Section 2, page 2, the reference in paragraph 7 to 4.8km should be changed to 4.9km.

In Section 3, page 4, the number 345 barg in the first bullet point should be changed to 320 barg.

### **Appendix Q5.2, Book 6**

In Attachment A3, Section A3.1 the reference in the 1<sup>st</sup> paragraph to '4.8km' should be changed to 4.9km.

### **Appendix Q6.3, Book 6**

Text in Figures 5.3, 5.4 & 5.5 has been corrected. In the right hand (red) box, "Pilot safely executes emergency landing – no injuries" now states "Pilot safely executes emergency landing – injuries".

Appendix Q6.3 Attachment B, Figure B3.2. Figure B3.1 was mistakenly shown as Figure B3.2. Correct versions of Figures 5.3, 5.4 & 5.5 and Figure B3.1 are in Appendix G of the Addendum.

### **Appendix Q6.4 (DNV), Book 6, Vol. 2**

The Cover Page should be amended to state 'Appendix Q6.4, Report, Corrib Onshore Pipeline QRA'.

In Section 6.4.3.1, page 39, the reference in the second paragraph to the modification factor in '6.4.3.1' should be changed to '6.4.2.1'.

In Section 6.4, the reference in the first paragraph to 'Table 7' should be changed to 'Table 5'.

In Section 6.4.6, the reference in the first bullet point on page 42 to the size of the excavators operating in the locality should be changed from 'a maximum of approximately 30 tonnes' to 'an average of approximately 15 – 20 tonnes'.

In Section 7.2.2.1, the minimum distance between the pipeline and any form of congestion (in this case conifer forest) should be changed from 40m to 15m.

In Section 8, the words 'greater than' in the second paragraph should be changed to 'less than'.

In Section 8.4, the existing footnote for Table 18 should be deleted and two footnotes added, as shown below:

**Table 18:** Predicted Individual Risks at the Houses nearest to the Pipeline

Distance of house from pipeline (m)	Risk of Receiving a Dangerous Dose or more (per year)	Individual risk of fatality (per year)
246 (Buried) <sub>(1)</sub>	1.5E-11	3.8E-12
234 (Tunnelled) <sub>(2)</sub>	2.1E-11	5.3E-12

1. Actual distance from house to pipeline (Appendix A2, Book 1, Volume 2)

2. The distance from the pipeline to the closest dwelling is 242m which gives a potential minimum distance of 234m. A distance of 230m has been used for the modelling.

The following references relate to Vol. 3 of the EIS.

### **Chapter 1, Book 2**

In Section 1.1, paragraph 16 on Page 1-4 the reference to EPA approval of the rehabilitation plan for the cutover peatlands of the Oweninny Works should be changed from June 2002 to June 2003.

The title of Table 6.6 on Page 6-30 should be amended to reference both the 2008 and 2010 Breeding Bird Surveys.

In Section 7.7.2, Page 7-16 the first three bullets have been changed to reflect the recommendations made by the NWRFB in 2010, as follows:

- Avoid discharge of potential polluting matter during or after deposition. Settlement lagoons and silt traps should be utilised to prevent suspended solids entering nearby watercourses. Design of lagoons should ensure they are effective during extreme rainfall events. Prepare maintenance and monitoring schedule for described settlement lagoons and traps and a water quality monitoring programme should also be put in place for watercourses leaving the site'. Settlement Lagoons and a deep settlement tank/grit trap are currently utilised on site. The lagoons have been designed to take into consideration these issues and a maintenance and monitoring schedule have been put in place. A water quality monitoring programme is currently in place.
- 'Store and refuel petroleum products in bunded areas away from water courses or off site.' Bunded areas are included on site.
- 'Works to be carried out during dry weather. Extreme caution should be taken during fish mitigation periods which are October to April for adult Salmon, mid April to early May for smolts and July for sea trout'. Works will be undertaken during appropriate climatic conditions.

In Section 9.3.3, Page 9-16 the reference to 2007 monitoring data in the last paragraph should be changed to refer to 2008 monitoring data.

The following references relate to the Book of Drawings

### **DG0401 & DG0404**

Existing ground levels are shown incorrectly in the vicinity of the reception pit (Dg0401) and starting pit (Dg0404). These levels should be as follows:

On drawing Dg0401, existing ground level at the tunnel reception pit (Ch. 83.88) should read 10.2m CD (8.11m OD).

On drawing Dg0404, existing ground level at the tunnel starting pit (Ch. 88.77) should read 8.7mCD (6.61m OD).

The proposed tunnel trajectory is unchanged. The proposed levels of the tunnel centreline and bedrock level within Sruwaddacon Bay shown on drawings Dg0401 – Dg0404 are correctly quoted as per Osiris survey data.