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Agenda Item 5.1: **Pollution, noise pollution, disturbance**

Report on Information on Offshore Use of Explosives by the United Kingdom 2003-2005

Submitted by: **United Kingdom**

NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR OWN COPIES OF THESE DOCUMENTS TO THE MEETING

Department of Trade and Industry

Report

on

Information on Offshore Use of Explosives by the United Kingdom 2003-2005

Working paper

March 2006

Department of Trade and Industry
Licensing and Consents Unit
Offshore Environment and Decommissioning

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1 INTRODUCTION

The United Kingdom is a Party to The Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS). ASCOBANS has *inter alia* been developing its approach to the conservation of small cetaceans with respect to marine noise, which is commonly taken to include explosive noise. This includes requesting Parties to introduce mitigation measures and monitoring systems and also inviting Parties to research the effects of acoustic disturbance on marine mammals.

There are currently approximately 200 suspended subsea wells in UK offshore waters, mainly exploration wells awaiting final abandonment. UKOOA (United Kingdom Offshore Operators Association) have collectively committed to the DTI that the number of suspended wells outwith the 500 metres exclusion zones around platforms will be significantly reduced in future years as, although the locations of these wells are available through the Kingfisher Yellow Card Scheme, the wellheads present hazards to the fishing community.

The method of well decommissioning is contained in the UK industry guidelines "Guidelines for the Suspension and Abandonment of Wells" (2001), UK Offshore Operators Association. Typically, wells are severed using explosives placed in the well 3m below the seabed. Wells may also be cut mechanically, although this is not suited to all well constructions and not always successful. Work on developing cutting techniques is progressing and it is thought that explosive use will lessen in future years as technology to cut in deeper waters and rigless abandonment techniques are further improved.

Explosives are also used during the decommissioning of oil and gas structures. Under the OSPAR Decision 98/3 all oil and gas structures must be removed to below the seabed (derogations may be applied for, for footings of steel jackets weighing 10,000 tonnes or more and concrete structures). In order to conform to OSPAR 98/3 it may be necessary to use explosives to sever well templates or other oil and gas infrastructure from the seabed.

Currently, the UK consents explosives use in the offshore oil and gas industry for wellhead abandonment via a Petroleum Operations Notice Form 5 (PON5). For both platform and wellhead decommissioning, mitigation measures will be applied. Operators are currently required to refer to the draft JNCC Guidelines for minimising acoustic disturbance to marine mammals when using explosives. These guidelines call for the use of both visual and passive acoustic monitoring during explosive use. It is hoped that these draft guidelines will be improved and finalised in the coming year.

The PON 5 consents contain information on explosives use but the information is not routinely published. This document represents the first formal report to ASCOBANS on the use of offshore explosives. This report covers the years 2003-2005 and contains information on the use of explosives to sever wellheads but does not contain information on the use of explosives during other decommissioning activities. Efforts will be made to include this in future years.

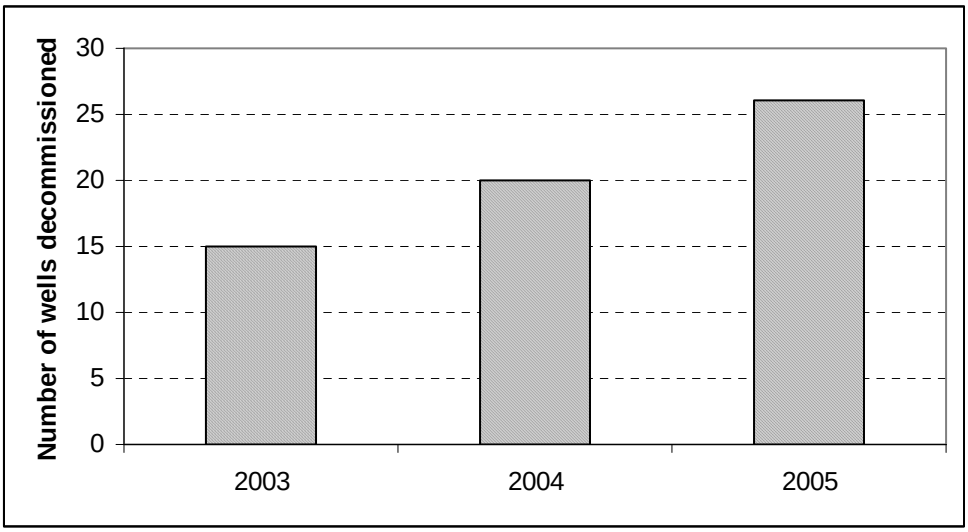
2 RESULTS

2.1 Overall

Numbers of wells decommissioned by explosives are shown in **Figure 2-1**, totalling 15 in 2003, 20 in 2004 and 26 in 2005. There appears to be a consistent increasing trend.

In context, there are around 250 remote wellheads in the UKCS and a further 93 wellheads underneath platforms (www.ukdeal.co.uk, 2005). The number of new wellheads installed per year has not been ascertained.

Figure 2-1 Use of Explosives in Wellhead Decommissioning 2003-2005



2.2 Annual analysis

Annual plots of numbers of wellheads decommissioned have been constructed from the PON5 records. These are shown in **Appendix A**.

The maximum number of wellheads decommissioned explosively in a quadrant was 7, occurring in Quadrant 3 in 2005.

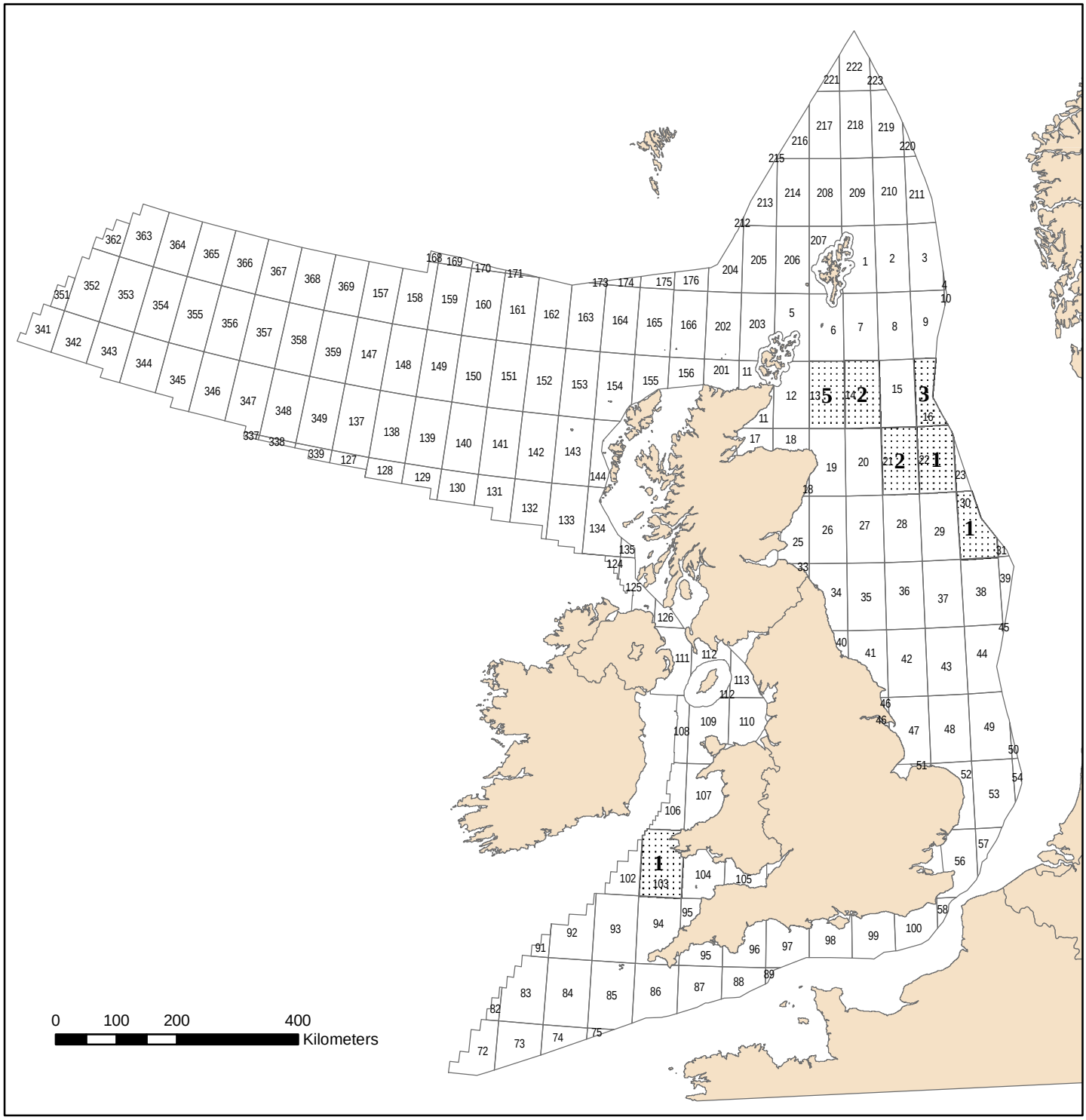
2.3 Details of explosive charges

Currently, there is not a consistent framework for reporting the characteristics of a charge that would enable its environmental impacts to be evaluated. This is an area that requires attention if the information is to be used to manage environmental impacts. It is expected, due to standardisations of well design and abandonment guidelines, that well decommissioning impacts could be assessed in a generic way, although there is insufficient data at present to conclude this.

2.4 Use of Marine Mammal Observers

It is common practice to employ a marine mammal observer (MMO) during an explosive well decommissioning operation, although this is not consistently reported at present. Recommendations on MMOs are made in discussion with DTI, JNCC and the operator prior to a consent being given.

APPENDIX A – ANNUAL PLOTS RELATING TO USE OF EXPLOSIVES

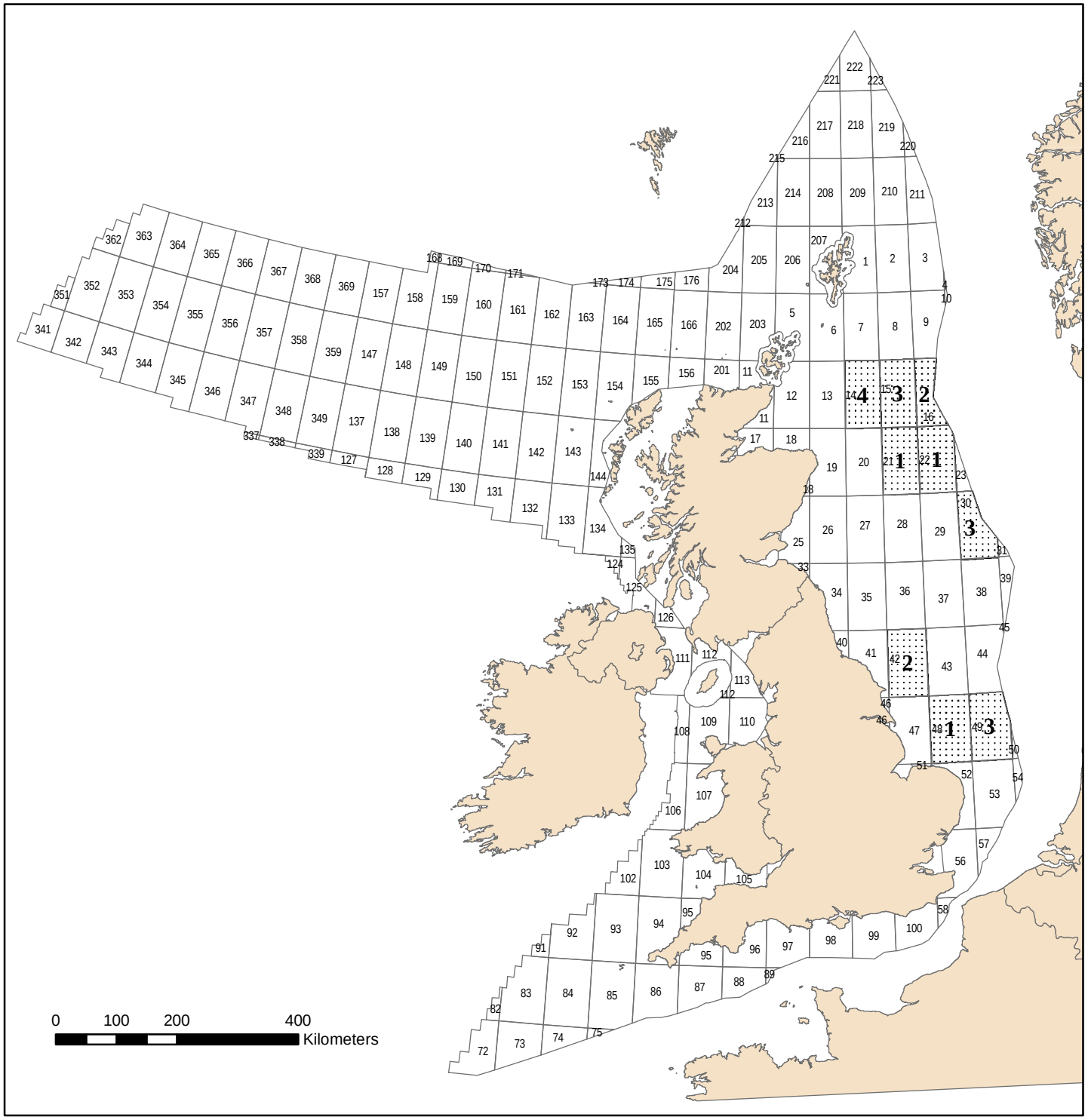


Legend

Explosive well decommissioning 2003

3 Number of wells in quadrant

United Kingdom
Use of Explosives Offshore
2003

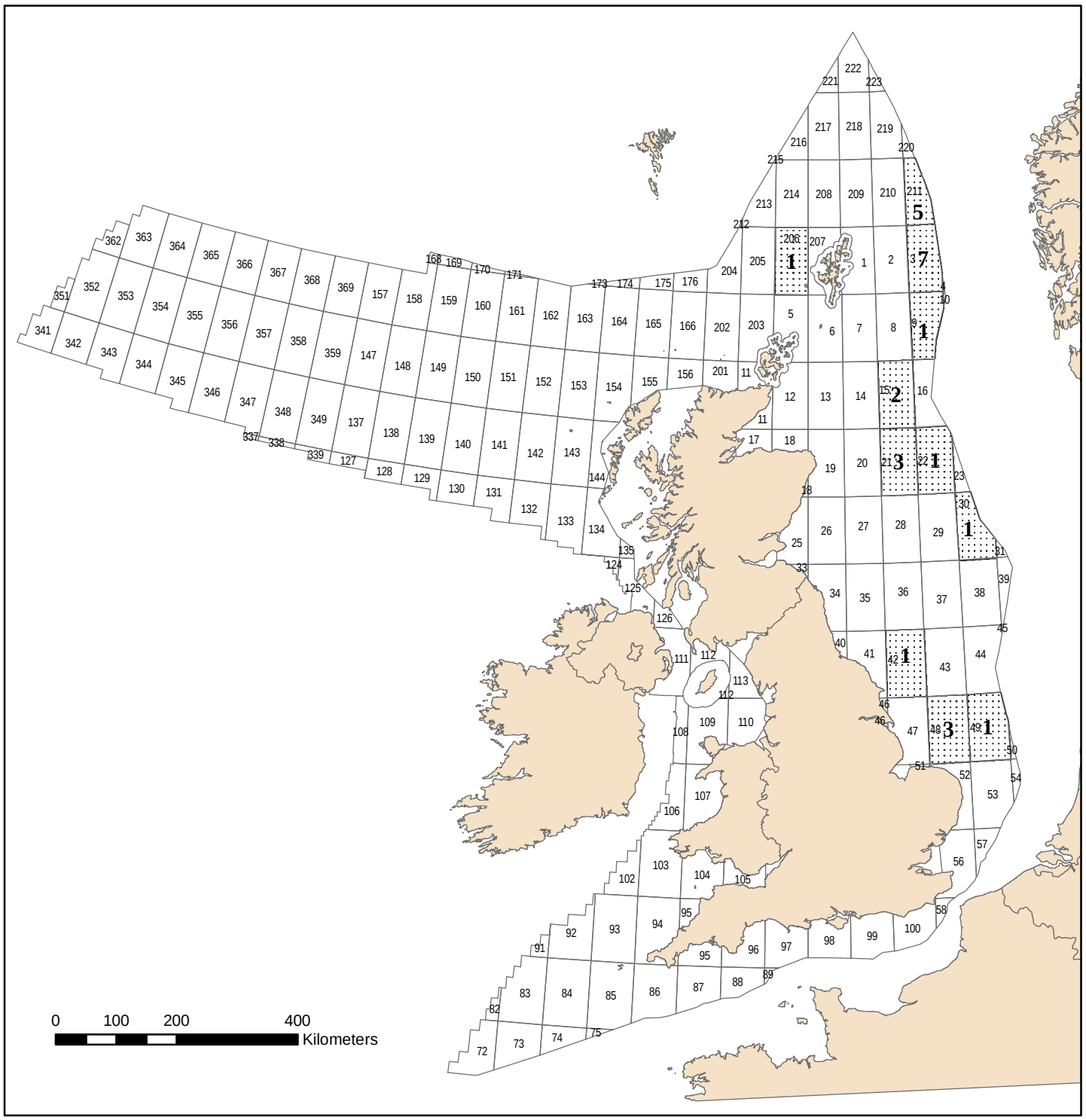


Legend

Explosive well decommissioning 2004

3 Number of wells in quadrant

United Kingdom
Use of Explosives Offshore
2004



Legend

Explosive well decommissioning 2005

3 Number of wells in quadrant

United Kingdom
Use of Explosives Offshore
2005