BRITISH TELECOMMUNICATIONS PLC

Scotland - Northern Ireland (Scot-NI) 3 and 4 Replacement Cables

Technical Appendix G1 - Marine Archaeological Desk-based Assessment

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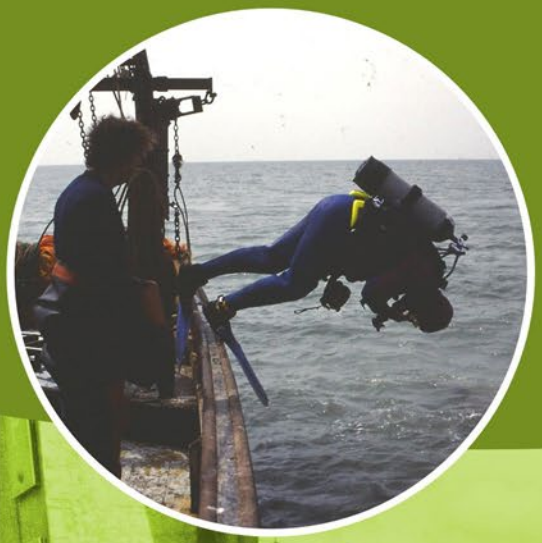

Coracle Archaeology

BT Scotland-Northern Ireland: SCOT-NI 3 & SCOT-NI 4

Marine archaeological desk-based assessment

for

Intertek

CA ref: 190203

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BT Scotland-Northern Ireland: SCOT-NI 3 & SCOT-NI4

Marine archaeological desk-based assessment

Coracle project no.: 190203

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SUMMARY

Project name: BT Scotland-Northern Ireland: SCOT-NI 3 and SCOT-NI 4

Coracle Archaeology was commissioned by Intertek Energy & Water Consultancy Services on behalf of Global Marine to undertake marine archaeological assessments, including this desk-based assessment, for the BT Scotland-Northern Ireland Telecommunications Cables project. This is a proposed submarine telecommunications cable system between Scotland and Northern Ireland, comprising two individual, discrete cables:

- SCOT-NI 3, with landfall at Portpatrick, Scotland and Templepatrick, Northern Ireland; and
- SCOT-NI 4, with landfall at Girvan, Scotland, and Larne, Northern Ireland.

This desk-based assessment of marine and coastal cultural heritage assesses the proposed cable survey corridors and a wider study area extending 1km either side of the proposed cable routes. The development will take place exclusively in Scottish and Northern Irish (UK) waters; the cable routes above mean high water springs are beyond the remit of this report, though assets in the vicinity are briefly addressed.

This DBA provides a baseline assessment of known sites and features of cultural heritage significance along a 500m wide cable survey corridor, centred on the proposed cable routes, and a wider study area which extend a further 750m either side of the CSCs. The latter facilitates an assessment of the density of wrecks in the area. This in turn provides an indication of the potential to encounter unknown and unexpected archaeological sites and features. This assessment will be used:

- to assess the nature of the cultural resources in this area;
- to outline the archaeological potential of the marine environment; and
- to aid in the identification of seabed anomalies that may have been detected during the geophysical survey.

This assessment established that there are no designated or protected wrecks or scheduled monuments within the cable survey corridors of either SCOT-NI 3 or SCOT-NI 4. A total of 17 cultural heritage assets sites are recorded within the SCOT-NI 3 cable survey corridor, including 16 wrecks, and one monument. There are seven cultural heritage assets recorded within the

SCOT-NI 4 cable survey corridor, including five wrecks, one aircraft and one monument. The confirmation of the existence of these sites within the CSC must, however, await further investigation, including the archaeological assessment of marine geophysical survey data.

A number of wrecks are reported within the 2km wider study areas for each cable route. Many of these are reports of wreck events and either do not have reliable locational information or should not be seen as indicative of the presence (or otherwise) of physical remains. These records are included to highlight the potential for encountering wrecks which have been reported in the past, but for which there is presently no material evidence to substantiate their existence within the wider study area.

A total of 31 potential cultural heritage assets are recorded in the wider study area for SCOT-NI 3, including 23 wrecks, three obstructions, one findspot, two monuments, one B-listed building and a designed landscape. There are 21 potential heritage assets recorded in the wider study area for SCOT-NI4, including 11 wrecks, one aircraft, five obstructions, three findspots and one site.

The relatively low number of records along both cable survey corridors suggests that the potential to encounter unexpected cultural remains is low. This will be reassessed following the archaeological review of project-specific marine geophysics.

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LIST OF ACRONYMS USED IN THE TEXT

ADS	Archaeology Data Service
BMH	Beach manhole
CA	Coracle Archaeology
CIfA	Chartered Institute for Archaeologists
CD	Chart datum
CSC	Cable survey corridor
EMODnet	European Marine Observation and Data Network
EPSG	European Petroleum Survey Group
GIS	Geographic Information System
GPS	Global Positioning System
grt	Gross registered tonnage
HES	Historic Environment Scotland
HER	Historic Environment Record
HERoNI	Historic Environment Record of Northern Ireland
ka	Kilo annum
MHWS	Mean high water springs
nm	Nautical miles
OSGB	Ordnance Survey Great Britain
RoW	Receiver of Wreck
RSL	Relative sea level
SEA	Strategic environmental assessment
TM	Topographic mapping
UKHO	United Kingdom Hydrographic Office
UTM	Universal Transverse Mercator
WGS	World Geodetic System
WoSAS	West of Scotland Archaeology Service

1. INTRODUCTION

Outline

1.1. Coracle Archaeology (CA) was commissioned by Intertek Energy and Water Consultancy Services (Intertek) on behalf of Global Marine in July 2020 to undertake marine archaeological environmental assessments, including this desk-based assessment, for British Telecommunications (BT) Scotland. BT Scotland plan to install two replacement telecommunications cables between Scotland and Northern Ireland: SCOT-NI 3 and SCOT-NI 4 (henceforth 'the project'). This report includes an assessment of marine and coastal cultural assets along the proposed routes, up to, and in close proximity to, mean high water springs (MHWS) at the landfall locations.

1.2. The project consists of the installation and operation of two distinct 28-38mm wide replacement marine telecommunication cables (figure 1):

- SCOT-NI 3, between Portpatrick, Scotland and Templepatrick, Northern Ireland; and
- SCOT-NI 4, between Girvan, Scotland and Larne, Northern Ireland.

The existing cables (SCOT-NI 1&2) are nearing the end of the their functionable life and require replacement to maintain crucial telecommunication services. The project intends to add additional capacity to the existing cables, aiming ultimately to replace them. The existing beach manhole (BMH) infrastructure will be utilised at the landfall locations, with the exception of Larne, where a new BMH may be constructed.

1.3. This DBA is based on *Standard and Guidance for Historic Environment Desk-Based Assessment*, published by the Chartered Institute for Archaeologists (2014). It records known sites and features of cultural heritage significance, within and in proximity to the project areas, that have the potential to be affected by the proposed development. The significance of each site will be evaluated once the geophysical and geotechnical survey results have been assessed and compared with the results of this DBA.

Project background

1.4. The proposed route for SCOT-NI 3 will run for 43km between Portpatrick, Scotland and Templepatrick, Northern Ireland, including 21.2km in Scottish waters and 20.8km in Northern Irish waters. Two separate, but close, landfalls are proposed on the Scottish coast, one at Port Kale (Portpatrick), and the other at Port Mora (Portpatrick). The cable survey corridor (CSC) and wider study area (WSA) has been designed to encompass both options.

1.5. SCOT-NI 4 will run for 84.4km between Girvan, Scotland, and Larne, Northern Ireland, including 57.5km in Scottish waters and 26.9km in Northern Irish waters. This DBA assesses both routes, following relevant UK and national frameworks and guidance, as described in Section 3.

2. AIMS AND OBJECTIVES

2.1. The aim of this DBA is to identify known and potential cultural heritage receptors within the CSCs, which extend 250m either side of the proposed cable routes, and the WSAs which extend a further 750m beyond the CSCs. The objectives of this assessment are:

- To set out the statutory, planning and policy contexts relating to the historic environment for UK territorial waters and the EEZ;
- To provide an overview of the historic environment along the 2km wide WSAs centred on the proposed cable route, based on existing archaeological records and secondary sources; and
- To highlight known maritime sites that may be impacted by the proposed project, with particular reference to:
    - Shipwrecks, crashed aircraft and wreck material;
    - Submerged prehistoric sites and artefacts; and
    - Areas of archaeological potential.

3. LEGISLATIVE FRAMEWORK AND GUIDANCE

3.1. As the scope of this DBA is located exclusively in Scottish and Northern Irish (UK) territorial waters and EEZ, this assessment takes account of the following national, UK-wide and international legislative procedures and guidelines:

National

- Marine (Scotland) Act 2010
- Marine (Northern Ireland) Act 2013; and
- Historic Monuments and Archaeological Objects (Northern Ireland) Order (1995);
- Planning Art (Northern Ireland) 2011;

UK

- Protection of Wrecks Act 1973;
- Protection of Military Remains Act 1986;
- Marine and Coastal Access Act 2009;
- Ancient Monuments and Archaeological Areas Act 1979;
- National Heritage Act 2002;
- Merchant Shipping Act 1995;
- Treasure Act (1996)
- Burial Act 1857; and
- UK Marine Policy Statement (HM Government 2011).

3.2. This DBA has been compiled in accordance with industry best practice and the relevant offshore renewables and marine historic environment guidance. These include:

- Chartered Institute for Archaeologists (CIfA) guidelines (2014): Standard & guidance for archaeological desk-based assessment;

- Joint Nautical Archaeology Policy Committee (JNAPC; 1998) code of practice for seabed development;
- COWRIE (2007) Historic environment guidance for the offshore renewable energy sector;
- COWRIE (2008) Guidance for Assessment of Cumulative Impacts on the Historic Environment from Offshore Renewable Energy;
- COWRIE (2011) Guidance for offshore geotechnical investigations and historic environment analysis: guidance for the renewable energy sector;
- The Crown Estate (2014). Offshore renewables protocol for archaeological discoveries; and
- The Crown Estate (2010). Round 3 offshore renewables projects model clauses for archaeological written schemes of investigation.

4. METHODS AND DATA SOURCES

4.1. The following section sets out the methods followed for this DBA, including the geographical scope and the sources utilised for the collation of data.

Geographical scope

4.2. This DBA assesses a 2 km wide corridor, comprising a 500m wide CSC and a WSA that extends a further 750m each side of the CSC for the proposed cable routes. It focuses on the area below MHWS from Portpatrick, Scotland, to Templepatrick, Northern Ireland (SCOT-NI 3; figure 2) and from Girvan, Scotland, to Larne, Northern Ireland (SCOT-NI 4; figure 3). The WSAs enable an assessment of the archaeological potential of the routes, whilst highlighting notable sites in the vicinity of the proposed development. The purpose of the DBA is to identify known and potential sites within the CSC that could be affected by the development.

Sources

4.3. This DBA includes a documentary and cartographic search utilising a variety of sources to locate all known cultural heritage assets within the CSCs and to identify the archaeological potential of the area. Owing to ongoing COVID-19 constraints at the time

of reporting, it was not possible to consult the South Ayrshire historic environment record (HER) (managed by the West of Scotland Archaeology Service (WoSAS)), or local curators for either of the Northern Irish landfall locations. A full and detailed analysis of the remaining sources has nevertheless been undertaken. These include:

UK-wide

- Historic Environment Scotland archives (Canmore);
- Historic Environment Records of Northern Ireland (HERoNI), available as digital datasets online;
- UK Hydrographic Office (UKHO) review of cartography, historic charts and sailing directions;
- Dumfries and Galloway HER;
- Pastmap.org.uk website for south Ayrshire records
- Records held by the Archaeology Data Service (ADS);
- Marine Environment Data Information Network (MEDIN);
- British Geological Survey regional guide and previous work in the area;
- Rapid Coastal Zone Assessment (RCZA) survey reports;
- Readily accessible published sources and grey literature (e.g. results from previous studies); and
- Relevant Strategic Environmental Assessment (SEA) reports (e.g. UK Continental Shelf SEA archaeological baseline) and Coastal Survey Assessment reports.

International

- European Marine Observation and Data Network (EMODnet);
- Oceanwise Wrecks and Obstructions database; and
- Wrecksite.eu website

4.4. This DBA includes all known and potential maritime cultural heritage assets identified during this assessment, as detailed in the tables and figures outlined below. Records located along the routes have been assigned a unique Coracle Archaeology number using the abbreviation (**CA**) for ease of identification: (**CA3_**) for SCOT-NI 3, and (**CA4_**) for SCOT-NI 4.

Consultation with statutory bodies

4.5. For this assessment, the primary statutory bodies consulted were Historic Environment Scotland and Historic Environment Division, Department for Communities, Northern Ireland. Consultations were also held with the offices of the Dumfries and Galloway HER and the South Ayrshire HER, as curated by WoSAS. Owing to ongoing COVID-19 constraints at the time of reporting, it was not possible to consult with local curators for either of the Northern Irish landfall locations.

5. BASELINE ENVIRONMENT

5.1. The following sections outline the nature of the existing environment, including a discussion of the palaeo-environment.

Palaeo-environment

5.2. The bathymetry of the study area clearly shows the presence of the deep North Channel that separates Scotland from Northern Ireland. The channel passes through the centre of both route corridors (figure 4), reaching a maximum depth of c. 200m below chart datum (CD) along the SCOT-NI 3 route. Either side of this channel, the bathymetry shallows gradually towards the coastline, reaching c. 60m below CD within 5-10km of the landfalls, except along the SCOT-NI 4 route where this contour is met c. 30km west of the Girvan landfall.

5.3. The geology along the two proposed route corridors (figure 5) largely consists of undifferentiated bedrock situated below shallow superficial deposits, ranging in age from the Ordovician on the Scottish shores (including the Caradoc and Ashgil Rocks approaching the Portpatrick landfall), though to Upper Cretaceous deposits around Larne. A series of Tertiary-age Lower Basalts are also present along the Irish coastline at Larne, with some unnamed igneous intrusions close to Templepatrick. The superficial

deposits (figure 6) across the seabed in the western part of the study area are composed of thin sands and gravels (less than 1m and often <0.3m in thickness). These occasionally overlie localised thick deposits of glacial till (sometimes exceeding 50m in thickness) preserved within incised channels running parallel with the North Channel. Gravelly sands and muddy sandy also dominate the seabed deposits on the approach to Portpatrick.

5.4. By contrast, thick deposits of acoustically layered silty-clay up to 30m in thickness dominate the SCOT-NI4 route in Scottish waters within the Lower Firth of Clyde. These overly 5-10m of till sitting on the bedrock surface and extend up to 30km offshore from Girvan. Where these layered silty-clays have been investigated, the reflectors have not been shown to relate to lithological changes and the sediment type appears relatively homogeneous. These deposits are likely to have been deposited within a marine environment in the late-glacial period, though shallower water fluctuations in sea-level could have led to some of the deposits becoming littoral. This is evident along the Ayrshire coastline, where a wedge of sand interfingers seawards into the deeper water clay facies. Investigations of the base of the layered silty-clays, south-east of Campbeltown, Kintyre, have shown that the base of the sequence was likely to have been deposited during the Windermere interstadial, c. 14.7-12.7 kilo annum (ka). The Loch Lomond stadial cooling (c. 12.7-11.7 ka) was observed by a significant reduction in cysts, with a further increase in populations indicating the onset of the Holocene period c. 11.7 ka (Deegan *et al*. 1973). To the west, the thickness of superficial deposits significantly reduces towards the North Channel area where the strong tidal currents result in very thin and discontinuous deposits.

5.5. The later Pleistocene history of the area is dominated by Late Devensian events associated with the British Irish Ice Sheet, predating the deposition of acoustically-layered silty-clay. Investigations of the glacial history of this area suggest that ice expansion towards the shelf edge commenced c. 35-32 ka, initially spreading into Ireland, the Irish Sea Basin and northern England, before the establishment of an ice divide across the North Channel c. 28-27 ka (Clark *et al*. 2012; Hughes *et al*. 2014; Ballantyne & Small 2019). During this expansion, the North Channel would have formed

an important ice flow path for the ice sheets, forming a substantial ice stream network, together with ice from Ireland and northern Scotland (Hughes *et al*. 2014). This persisted until the separation of the British and Irish Ice Sheets c. 17-16 ka (Clark *et al*. 2012).

5.6. The high glacial load in this region indicates that post-glacial relative sea level (RSL) change has been non-monotonic, falling from well above present to a minimum in the Early Holocene, then rising again to a mid-Holocene highstand, before falling to present levels (figure 7; Shennan *et al*. 2018; Carter 1982). Coastlines emergent after glacial retreat are today recognised as relict features up to 20m above modern sea level. Early Holocene sea levels at c.11 ka are likely to have been only 5-15m below the present level, rising to about 5-10m by c. 6 ka.

5.7. This interplay between eustatic and isostatic factors throughout the Late Pleistocene and Holocene means that the potential zone for locating submerged palaeo-landscapes on both the Scottish and Northern Irish coastlines is confined to near-shore and on-shore areas located between c. -15 and +30m. This is replicated in other studies within the Irish record: Westley and Woodman (2020), for example, demonstrate that chronologically constrained (i.e. concentrated within the Holocene, with perhaps brief windows into the Late Glacial) and extensive submerged landscapes are likely to be rare, given the limited shelf exposure, glacial history and high-energy conditions. Evidence for submerged palaeo-landscapes and prehistoric activity are therefore likely to be only found within 1-2km of each respective landfall, with the rest of the route sub-tidal throughout the post-glacial period (see Deegan *et al*. 1973).

Recorded maritime cultural heritage

Limitations of data

5.8. One of the greatest limitations when researching known and potential marine cultural heritage is the difficulty of locating recorded maritime losses. For many losses, the location of the sinking of the vessel comprises a general area description, such as ‘seen to go down a little south of Portpatrick in a gale’, which is not useful practically for the purpose of accurate assessment, except to indicate that potential exists to encounter unrecorded cultural remains (see for example **CA3_11-16**, below). This is particularly

true of ships that ran aground on the foreshore, where salvage and poor survival of remains in such a high-impact environment makes locating losses especially problematic.

5.9. Recorded maritime losses are also heavily biased towards the 19th and 20th centuries, when more comprehensive records of losses began to be compiled.

5.10. Many wrecks have been identified through sonar survey, but this too presents difficulties: the location of many of these wrecks were recorded using GPS, which until relatively recently was accurate to only 100m (Baird 2009; Satchell 2012), or by DECCA, which could provide accuracy only to one kilometre.

5.11. The details for specific offshore cultural heritage assets within the study area were acquired from the sources cited above. These databases are each derived, in turn from a variety of sources including various published lists of marine losses and marine surveys. Consequently, there are both overlaps and discrepancies between the datasets.

5.12. The project Geographic Information System (GIS) uses World Geodetic System 1984 (WGS84) 30N Universal Transverse Mercator (UTM; European Petroleum Survey Group (EPSG) projection 32630). Geospatial data for the CSCs were supplied by the client in WGS84, as was data from Oceanwise. Data from these two sources were projected into the GIS without transformation.

5.13. Geospatial data from Historic Environment Scotland and data acquired from *Pastmap* for the Girvan landfall were transformed from Ordnance Survey Great Britain 1936 (OSGB36; EPSG projection 27700) into WGS84 (EPSG projection 4326), using the transformation OSGB 1936 to WGS 1984 Petroleum (EPSG transformation 1314), which has a stated accuracy of ±2m.

5.14. Geospatial data from the Dumfries and Galloway HER was supplied in two formats. Terrestrial data was supplied in OSGB36 and transformed into WGS84, using the transformation OSGB 1936 to WGS 1984 Petroleum. Marine data was supplied in a Map

Info generic lat/long format; this data was subsequently transformed into WGS84 using the define project tool.

5.15. Geospatial data from HERoNI were transformed from Irish National Grid (TM65 Irish Grid) (EPSG projection 29902) into WGS84 using the transformation TM65 to WGS 1984 2 (EPSG 1641), which has a stated accuracy of ±2m.

5.16. Transformed and projected data were then clipped using a 2km wide buffer centred on each of the proposed cable routes.

5.17. Wrecks and obstructions discussed below are generally referred to using the UKHO designations of 'live' or 'dead'. 'Live' refers to those where there is a known location, verified by recent surveys. 'Dead' refers to incidents that have been recorded as lost in a certain location, but which have not been detected by repeated, or the most recent surveys.

5.18. The tables and discussion below cover all available HES, HER, HERoNI, UKHO and Oceanwise entries. Records of dead wrecks and obstructions are also included; although their precise location is unknown as the recorded locations may still contain remains of cultural heritage interest. Given locational discrepancies, there is also the possibility that wrecks lie beyond previous search areas.

5.19. The old archaeological adage that absence of evidence is not evidence of absence is pertinent here. In other cases, however, it is clear from the details of an entry that there is no reason to believe that there are now or ever have been archaeological remains in a particular location. These entries have also been included and are discussed on a case-by-case basis below.

5.20. The various datasets used in the compilation of this DBA have been cross-referenced to remove duplicate entries and are presented in the tables below. For those mentioned in multiple datasets, the reference to each source is provided.

5.21. For ease of reference, the following discussion of known cultural heritage assets is divided into the two cable routes.

Sites of cultural heritage interest within the SCOT-NI3 proposed cable route

5.22. There are 48 records along the CSC and the WSA for SCOT-NI3 (table 1) including 39 wrecks, three obstructions, one findspot, three monuments, one building and one designed landscape. The building is a B-listed designated historic asset. Seventeen records are located within the CSC, with a further 31 located within the WSA.

5.23. It is important to emphasise that many of the wrecks discussed below are reports of wreck events, and either do not have reliable locational information or should not be seen as indicative of the presence (or otherwise) of physical remains. These records are included to highlight the potential for encountering wrecks which have been reported in the past, but for which there is presently no material evidence to substantiate their existence.

Table 1 Sites and monuments along the SCOT-NI3 CSC and WSA

Type	CSC	WSA	Total
Wreck	16	23	39
Obstruction	0	3	3
Findspot	0	1	1
Monument	1	2	3
Building	0	1	1
Landscape	0	1	1
Total	**17**	**31**	**48**

Sites of cultural heritage interest within the SCOT-NI3 CSC

5.24. Sixteen wrecks and one monument are located within the SCOT-NI3 cable survey corridor (table 2; figure 8). There are no designated or protected wrecks, nor any scheduled monuments within the CSC below MHWS.

Table 2 SCOT-NI3 CSC gazetteer entries

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA3_1	Unknown	Wreck	1775	Unknown	54.849329	-5.132409	HES canmore
					54.849785	-5.131387	HER MDG25013
CA3_2	*Goodintent*	Wreck	1799	Unknown	54.838246	-5.144029	HER MDG25091
CA3_3	*Deveonshire*	Wreck	1810	Unknown	54.849329	-5.132409	HES canmore
CA3_4	*James*	Wreck	1811	Unknown	54.838924	-5.151871	HER MDG12090
CA3_5	*Mary*	Wreck	1820	Unknown	54.838942	-5.151888	HER MDG12283
CA3_6	*Elizabeth*	Wreck	1858	Unknown	54.851130	-5.132566	HER MDG12083
					54.850226	-5.132479	HES
CA3_7	*Ossier*	Wreck	1866	Unknown	54.850193	-5.134052	HER MDG12290
					54.850226	-5.132479	HES
CA3_8	*Mauritus*	Wreck	1872	Unknown	54.838924	-5.151886	HER MDG12274
CA3_9	*Elizabeth & Ann*	Wreck	1879	Unknown	54.749416	-5.171315	HES
CA3_10	*Norseman*	Wreck	19thc	Unknown	54.838942	-5.151872	HER MDG12288
CA3_11	Unknown	Wreck	19thc	Unknown	54.838924	-5.151855	HER MDG12302
CA3_12	Unknown	Wreck	19thc	Unknown	54.838942	-5.151857	HER MDG12301
CA3_13	*Perseverance*	Wreck	19thc	Unknown	54.838960	-5.151874	HER MDG12294
CA3_14	Unknown	Wreck	1943	Unknown	54.845626	-5.136813	HER MDG25062
CA3_15	*Phasma*	Wreck	19th-20thc	Unknown	54.838960	-5.151858	HER MDG12296
CA3_16	*Morning star*	Wreck	20thc	Unknown	54.838960	-5.151889	HER MDG12285
CA3_17	*St Kain's well*	Monument	1893	Unknown	54.849329	-5.132409	HES canmore

5.25. An unnamed vessel (**CA3_1**) carrying a cargo of cotton, tallow and lemons was reportedly lost off the coast of Portpatrick on 20 January 1775. The wreckage and cargo were salvaged from Dunskey Glen (canmore.org.uk). The Dumfries and Galloway HER and the archives of HES report two different locations for the wreck (see table 2).

5.26. Little or no information is available for several of the earlier wreck records, suggesting they refer to reported losses in the general area. These include:

- *Goodintent* (**CA3_2**) a British sloop, wrecked near Portpatrick in January 1799;
- The *Deveonshire* (**CA3_4**; possibly *Downshire*), a British packet vessel, measuring 16 x 5 x 3m. She was reportedly wrecked on 17 November 1810 (canmore.org.uk). HES records the *Deveonshire* in the same location as (**CA3_1**).
- *James* (**CA3_4**), an English sloop of 62 gross registered tonnage (grt), built in 1806 and lost in a storm off Portpatrick in November 1811; and

  Mary (**CA3_5**), lost *en route* from Greenock to Liverpool in January 1820. All the crew were saved.

5.27. *Elizabeth* (**CA3_6**) was a British sloop of 23 grt, built in 1853 and registered in Stranraer. The vessel was driven from anchor at Port Kale whilst under ballast on 13 July 1858. The crew made it ashore, but the uninsured vessel was wrecked. An alternative location for the wrecking incident is recorded in the Dumfries and Galloway HER (see table 2).

5.28. The *Ossier* (**CA3_7**) was a Northern Irish brig *en route* from Workington to Belfast with a cargo of coal when it was wrecked on 13 January 1866. The crew were rescued by the Portpatrick Coastguard using a rocket apparatus. This and the *Elizabeth* (**CA3_6**) are both reported in the same location by HES. An alternative location for the wrecking incident is recorded in the Dumfries and Galloway HER (see table 2).

5.29. The *SS Mauritius* (**CA3_8**) was a steamship of 620 grt, which left Bordeaux for Glasgow on 1 November 1872. It foundered in bad weather somewhere between Portpatrick and Corsewall Point on 4/5 November 1872. Two bodies washed ashore at Donaghadee on 23 November 1872 were later identified as the master and mate.

5.30. The *Elizabeth and Ann* (**CA3_9**) was a Northern Irish wooden dandy of 40 grt. It was built in Belfast in 1816, and was owned at the time of her loss by W. Whyte. It foundered *en*

route from Workington to Mill Bay on 29 November 1879 with a cargo of coal (canmore.org.uk).

5.31. The *Norsemen* (**CA3_10**) was a steamship of 155 grt, built at Paisley in 1875 and owned at the time of its loss by JJ McFarlane of Glasgow. The coastal steamer is believed to have foundered during a gale off the coast of Portpatrick, with the loss of all nine crew. Wreckage confirming the wreck's identity was subsequently washed ashore between Portpatrick and Knock Bay. No exact date of loss is provided.

5.32. The Dumfries and Galloway HER records a number of wrecks solely as 19th or 20th century losses, often with little or no further information. It is noteworthy that the majority are located within a small area (and close to **CA3_4-5** & **CA3_8**; see figure 9). This too would suggest that they refer to reported losses, rather than the physical location of wreck sites. These include:

- An unknown 19th century schooner (**CA3_11**) run down at night by the Glasgow bound *SS Princess Royal II*; no survivors were recovered;
- An unknown 19th century sloop (**CA3_12**), seen to go down 'a little south of Portpatrick' in a gale. All hands were lost;
- *Perseverance* (**CA3_13**), driven ashore at Portpatrick, *en route* from Limerick to Liverpool in the 19th century. Part of the ship's cargo was salvaged;
- An unknown vessel (**CA3_14**) involved in a collision off the coast of Portpatrick on 3 December 1943. The vessel reportedly sunk;
- The *Phasma* (**CA3_15**) was a small yacht involved in a collision with the *SS Albion* off the coast of Portpatrick. The crew were all rescued by the steamship. No date is given, but the HER records it as 19th century – modern; and
- *Morning Star* (**CA3_16**), an 18.2m vessel recently released from naval service which foundered on rocks. The crew made it ashore using a breeches buoy; the following day the vessel could not be found. The Dumfries and Galloway HER records this solely as a 20th century loss.

5.33. One monument (**CA3_17**) is recorded within the CSC. *St Kain's well* (or St Cainneach or Canigus) is classified as a Holy Well – a well or spring reputed to possess healing properties (canmore.org.uk). The monument is recorded in the same offshore location as (**CA3_1** & **CA3_3** described above); the location should therefore be considered arbitrary.

Sites of cultural heritage interest within the SCOT-NI3 WSA

5.34. Thirty-one records are located within the WSA (see table 3; figure 10) including 23 wrecks, three obstructions, one findspot, two monuments, one category B-listed building (**CA3_47**) and one designed landscape.

Table 3 SCOT-NI3 WSA gazetteer entries

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA3_18	*Gairlies*	Wreck	1739	Unknown	54.842238	-5.128761	HER MDG25022
CA3_19	*Mally & Sally*	Wreck	1795	Unknown	54.829515	-5.134005	HER MDG25061
CA3_20	*Oroonoko*	Wreck	1810	Unknown	54.840356	-5.131713	HES canmore
CA3_21	*Dasher*	Wreck	1830	Unknown	54.831383	-5.131018	HES canmore
CA3_22	Unknown	Wreck	1839	Unknown	54.840356	-5.131713	HES canmore
CA3_23	*Tiger*	Wreck	1839	Unknown	54.845890	-5.131490	HER MDG12299
CA3_24	*Elizabeth*	Wreck	1847	Unknown	54.840356	-5.131713	HES canmore
CA3_25	*Orion*	Wreck	1850	Dead	54.842833	-5.123900	Oceanwise EK001-FN810-03289; HES canmore
CA3_26	*Elease*	Wreck	1868	Unknown	54.841165	-5.152825	HER MDG11844
CA3_27	*General Cathcart*	Wreck	1890	Unknown	54.841634	-5.152082	HER MDG11847
CA3_28	*Kempock*	Wreck	1918	Live	54.650000	-5.333333	Oceanwise EK001-FN810-03289; HES canmore; NI wreck data
CA3_29	*Rexmoor*	Wreck	1968	Live	54.700633	-5.195533	Oceanwise EK001-FN810-03289; HES canmore; HER
CA3_30	Unknown	Wreck	20th c.	Unknown	54.678700	-5.238583	Oceanwise EK001-FN810-03289; HES canmore; HER

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA3_31	*Calypso*	Wreck	1794	Unknown	54.840367	-5.131576	HER; HES canmore
CA3_32	*Assistance*	Wreck	1802	Unknown	54.840371	-5.131420	HER MDG25088
CA3_33	*Caledonia*	Wreck	1806	Unknown	54.840550	-5.131434	HER; HES canmore
CA3_34	*Mary*	Wreck	1820	Unknown	54.840457	-5.131583	HER MDG22698
CA3_35	*Curcora*	Wreck	1863	Unknown	54.840363	-5.131731	HER MDG22677
CA3_36	*Alice*	Wreck	1854	Unknown	54.831390	-5.131036	HER MDG25090
CA3_37	*Eugine*	Wreck	1856	Unknown	54.841470	-5.126115	HER MDG11845
CA3_38	*Aber*	Wreck	1871	Unknown	54.839947	-5.126574	HER MDG11836
CA3_39	Unknown	Wreck	1895	Unknown	54.828578	-5.135490	HER MDG24990
CA3_40	Unknown	Wreck	20th c.	Unknown	54.843168	-5.127258	HES canmore; HER22386
CA3_41	Orion Rock	Obstruction	Unknown	Unknown	54.841872	-5.123065	Oceanwise EK001-FN810-03289
CA3_42	Underwater rock	Obstruction	Unknown	Unknown	54.842392	-5.123010	Oceanwise EK001-FN810-03289
CA3_43	Underwater rock	Obstruction	Unknown	Unknown	54.842612	-5.122867	Oceanwise EK001-FN810-03290
CA3_44	Portpatrick - Flint Tools	Findspot	Prehistoric	n/a	54.842351	-5.124078	HES canmore
CA3_45	*Glen Cottage - Standing Stone*	Monument	Modern?	n/a	54.852398	-5.128440	HER MDG495
CA3_46	*Ouchtriemakain cave*	Monument	Unknown	n/a	54.850967	-5.128173	HER MDG502
CA3_47	*Port Kale Cable House*	Building	Modern	n/a	54.851716	-5.130490	HER MDG20590
CA3_48	*Dunskey House*	Landscape	19th-20thc	n/a	54.854	-5.127	HER MDG52274

5.35. The *Gairlies* (**CA3_18**) was a 'passage boat' or passenger ferry reported lost off the coast of Portpatrick on 26 November 1739. No further information is available.

5.36. *Mally and Sally* (**CA3_19**) was a brigantine of 89 grt, reportedly wrecked near Portpatrick on 1 November 1795 with an unspecified cargo. Built in 1761 and registered at Whitehaven, Mally and Sally measured 18m, with a beam of 6m.

5.37. The *Oroonoko* (**CA3_20**) was a brigantine of 105 grt, built in 1787 and registered at Maryport. It was lost on 11 January 1810 whilst *en route* from Whitehaven to Dublin with a cargo of coal. Five of the crew were lost (canmore.org.uk).

5.38. The *SS Dasher* (**CA3_21**) was a British paddle steamer of 130 grt. Built in 1821, the vessel was wrecked with an unspecified cargo on 19 December 1830.

5.39. Heavy gales in the area in January 1839 appear to have been responsible for the loss of at least two vessels. An unknown sloop (**CA3_22**) was reportedly lost with all hands near Portpatrick on 7 January 1839 (canmore.org.uk); the *Tiger* (**CA3_23**), a 79 ton schooner, was laid up for the winter in Portpatrick harbour when she was wrecked by a south-westerly on 15 January 1839.

5.40. The *Elizabeth* (**CA3_24**) was a Northern Irish cruiser (possibly a yacht or other recreational vessel), registered in Londonderry. Heavy north-westerly gales stranded the vessel on the shore, close to Portpatrick. The date of loss is recorded as 22 August 1847 (canmore.org.uk).

5.41. *Orion* (**CA3_25**) was a British registered iron paddle-steamer of 899 grt. Built by J. Caird & Company of Greenock in 1847, the passenger ship was *en route* from Liverpool to Glasgow on 19 June 1850 when it struck a submerged reef in calm waters just outside Portpatrick harbour. The impact ripped off the bottom of the vessel, resulting in the loss of 60 lives. The master, Captain Henderson was found guilty of 'culpable neglect of duty' and sentenced to 18 months' imprisonment; the second mate was charged with 'culpable reckless neglect of duty' and sentenced to seven years' transportation. The events were recorded in Reverend J. Clarke's *The wreck of the Orion* (1851), including a number of engravings of the sinking itself. The wreck was not detected by a 2017 survey and is now considered dead (wrecksite.eu).

5.42. The *Elease* (**CA3_26**) was a wooden brigantine of 86 grt. Sailing from Liverpool on 24 January 1868, it tried to enter Portpatrick harbour during a severe westerly gale, but was driven broadside and stranded. A rescue party landed on the vessel and managed to

get a line to one of the crew. A short time later the vessel broke up, with all remaining hands lost.

5.43. *General Cathcart* (**CA3_27**) was a wooden schooner of 48 grt, owned by James Glover of Ballywater. The vessel was *en route* from Maryport to Ireland on 13 August 1890 with a cargo of coal when she was seen in distress off Portpatrick. The crew was rescued by lifeboat shortly before the vessel wrecked ashore.

5.44. *Kempock* (**CA3_28**) was a British cargo steamer of 255 grt, built in 1866 by Scotts of Greenock. On 30 April 1918 it was sunk by German submarine *UB-85* whilst on passage from Belfast to Manchester with a cargo of potatoes. There were no known casualties. This live wreck is lying at a depth of c. 110m (wrecksite.eu).

5.45. *Rexmoor* (**CA3_29**) was a radar target ship, lost on 19 July 1968. The vessel measured 29.9 x 5.5 x 3m. This live wreck is lying at a depth of 280m (wrecksite.eu). The UKHO and HES datasets both name the wreck *Rexmoor* but it is recorded as *Redmoor* in the Dumfries and Galloway HER.

5.46. An unidentified wreck (**CA3_30**) was detected by sidescan sonar (SSS) in 1979. The wreck is believed to be approximately 91.4m long, intact, upright and laying at a depth of 127 to 143m. No visible scour was detected by surveys. The wreck is classified as live by HES but unknown by the UKHO.

5.47. A cluster of wrecks (**CA3_31-35**) is reported within a small, 20 x 20 x 28m triangle, close to the shore at Portpatrick. It is likely therefore that these are representative of reports of losses:

- *Calypso* (**CA3_31**) was a brigantine of 79 grt. Built in 1791 and registered in Greenock, it was wrecked off the coast of Portpatrick on 25 January 1794 with a cargo of salt beef and animal hides (canmore.org.uk).
- The *Assistance* (**CA3_32**) was a brigantine of 83 grt, lost near Portpatrick in c.1802; no further information is available;

- *Caledonia* (**CA3_33**) was *en route* from Dublin to Saltcoats when it wrecked near Portpatrick in January 1806. Both crew and passengers were lost (canmore.org.uk);
- *Mary* (**CA3_34**), of London, was driven ashore near Portpatrick on 19 January 1820 whilst *en route* from Greenock to Liverpool. The crew were saved and the ship was probably salvaged; and
- The *Curcora* (**CA3_35**) of Belfast, was reported lost in November 1863. No further information is available

5.48. A number of 19th century wrecks are recorded in the Dumfries and Galloway HER with no associated information other than name and an often vague date of loss. These include:

- *Alice* (**CA3_36**), wrecked near Portpatrick in late 1854;
- *Eugine* (**CA3_37**), a wooden brig of 156 grt, lost on 6 February 1856;
- The *Aber* (**CA3_38**), an iron paddle-steamer lost in a collision on 28 August 1871; and
- An unknown schooner (**CA3_39**), lost in February 1895.

5.49. One further unidentified wreck (**CA3_40**) is reported within the WSA. Its status is unknown and no further information is available.

5.50. There are three obstructions in the WSA: Orion rock (**CA3_41**) and two other underwater rocks (**CA3_42-3**). As these are not archaeological they will not be considered further.

Sites of cultural heritage interest within the WSA at the landfall location

5.51. A small group of wave-worn flints (**CA3_44**), including an end scraper, were discovered onshore, close to Portpatrick. The flints are now housed in the museum at Dumfries (canmore.org.uk).

5.52. There are a number of records of cultural heritage interest at the Port Mora and Port Kale landfall locations (figure 11). All are located above MHWS and are therefore beyond the remit of this report. They are nevertheless included here for information purposes.

5.53. Two monuments are located at Port Mora (**CA3_45-6**), and one building at Port Kale (**CA3_47**). A designed landscape (**CA3_48**) encompasses both landfall locations.

5.54. A standing stone (**CA3_45;** figure 12) is located approximately 35m SSW of Glen Cottage. It is a rounded granite pillar c. 1.25m high, with a maximum width of 0.6m. Immediately above the base this contracts to just 0.25m. The stone is not visible in the first edition of the OS 6-inch map, which suggests it may be of modern origin, though there is no local knowledge of it being erected (canmore.org.uk). The possibility that it is part of the designed landscape of the Dunskey estate (**CA3_48**; below) should not be discounted.

5.55. Ouchtriemakain Cave (**CA3_46;** figure 13) is located at the foot of the cliffs, c. 180m south of Glen Cottage. The name is believed to derive from Uchtred, Lord of Galloway, blinded by his younger brother and left to die in the cave in 1173. Reports from the early 20th century suggest that there was previously a gate, steps and an altar in the cave, to which locals would process on May Day to wash sick children in a spring. The cave was excavated by Leitch in 1930; signs of relatively recent occupation were reported (Leitch 1930), but no mention is made of the earlier structures and none are visible today (canmore.org.uk).

5.56. There is one building (**CA3_47**; figure 14) located within the WSA at the Port Kale landfall. The Port Kale Cable House is a purpose-built cable house, constructed in 1852 to house apparatus for testing the first telegraph cable to be laid between Scotland and Ireland. These cables were superseded and finally lifted in 1983. The cable house itself is double hexagonal in plan, with rendered walls and a pointed tiled roof. It lies within the Dunskey Estate and is now disused (canmore.org.uk), although a planning application has been made recently to reuse the buildings (Alastair Ewing pers. comm.). The Port Kale Cable House is a category B listed building.

5.57. Dunskey House (**CA3_48**) is a designed landscape associated with the 20th century house, and its 1830s predecessor.

5.58. No historic assets were reported within the WSA at the Templepatrick landfall.

Sites of cultural heritage interest within the SCOT-NI4 proposed cable route

5.59. This assessment has established that there are 28 records within the CSC and the WSA for SCOT-NI4 (see table 4), including 16 wrecks, two aircraft, five obstructions, three findspots, one monument and one site. Seven records are located within the CSC, with a further 21 located within the WSA. There are no designated or protected historic assets within the study area for SCOT-NI4.

Table 4 Sites and monuments along the SCOT-NI4 CSC and WSA

Type	CSC	WSA	Total
Wreck	5	11	16
Aircraft	1	1	2
Obstruction	0	5	3
Findspot	0	3	3
Monument	1	0	1
Site	0	1	1
Total	**7**	**21**	**28**

Sites of cultural heritage interest within the SCOT-NI4 CSC

5.60. A total of seven assets are recorded within the CSC (see table 5; figure 15), including five wrecks, one aircraft and one monument.

5.61. Two unidentified wrecks (**CA4_1** and **CA4_2**) are reported within the CSC. Both have an unknown status, and no further information is available.

5.62. Three wrecks (**CA4_3-5**) and one aircraft (**CA4_6**) are recorded at the same location in the bay at Girvan. Their locations are considered tentative by HES, and must be considered as reports of losses in the general area. They are included here to highlight the potential for encountering wrecks which have been reported in the past, but for which there is presently no material evidence to substantiate their existence.

Table 5 SCOT-NI4 CSC gazetteer entries

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA4_1	Unknown	Wreck	Unknown	Unknown	55.18672	-5.29399	HES Canmore
CA4_2	Unknown	Wreck	Unknown	Unknown	54.89913	-5.79938	Oceanwise EK001-FN810-03289
CA4_3	Unknown	Wreck	1749	Unknown	55.2242	-4.87873	HES Canmore; HERWOSAS (Pastmap)
CA4_4	*Nabby*	Wreck	1795	Unknown	55.2242	-4.87873	HES Canmore; HERWOSAS (Pastmap)
CA4_5	*Favourite*	Wreck	1870	Unknown	55.2242	-4.87873	HES Canmore; HERWOSAS (Pastmap)
CA4_6	*Bristol Beaufort*	Aircraft	1942	Unknown	55.2242	-4.87873	HES Canmore; HERWOSAS (Pastmap)
CA4_7	*Shalloch Castle, Smithy*	Monument	Unknown	n/a	55.22551	-4.86361	HERWOSAS (Pastmap)

5.63. An unnamed wreck (**CA4_3**) was reportedly lost near Girvan on 31 August 1749, carrying a cargo of clay (canmore.org.uk). No further information is available.

5.64. A 'Nabby' (**CA4_4**), a herring fishing boat, was lost at sea, possibly beyond Scottish waters, on or around 25 October 1795. The stern section was reported to have been cast ashore near Girvan (canmore.org.uk).

5.65. The *Favourite* (**CA4_5**) was a Scottish smack of 44 grt, built in 1849 and registered in Ayr. Measuring approximately 18m in length with a beam of 5m, it was driven ashore at Girvan on 20 February 1870 whilst *en route* from Carrickfergus. All the crew were saved (canmore.org.uk).

5.66. A *Bristol Beaufort* aircraft (**CA4_6**) suffered engine failure and crashed c. 400m (0.25 miles) off the coast of Girvan on 16 August 1942 (canmore.org.uk). No further information is available.

Sites of cultural heritage interest within the CSC at the landfall locations

5.67. One monument, Shalloch Castle (**CA4_7;** also known as the 'Smiddy' or 'Smithy) is recorded within the CSC at Girvan. Demolished in c.1895, it is likely to have been an ordinary cottage rather than a castle, and little remains at the site today (wosas.net).

5.68. No cultural heritage assets were reported within the CSC at Larne.

Sites of cultural heritage interest within the SCOT-NI4 WSA

5.69. A total of 21 assets are recorded within the SCOT-NI4 WSA, including 11 wrecks, one aircraft, five obstructions, three findspots and one site (table 6; figure 16).

Table 6 SCOT-NI4 WSA gazetteer entries

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA4_8	*Sarah Ann*	Wreck	1827	Unknown	55.22076	-4.87219	HES Canmore; HERWOSAS (Pastmap)
CA4_9	*Laure Denis*	Wreck	1852	Unknown	55.17078	-5.31781	HES Canmore
CA4_10	*Polly*	Wreck	1905	Unknown	55.2208	-4.87062	HES Canmore; HERWOSAS (Pastmap)
CA4_11	*Stars*	Wreck	1913	Unknown	55.21586	-5.0731	HES Canmore
CA4_12	Unknown	Wreck	1946	Unknown	55.23355	-4.86367	HES Canmore
CA4_13	Unknown	Wreck	Unknown	Live	54.96555	-5.61722	Oceanwise EK001-FN810-03289; HES Canmore; NI Wreck Data
CA4_14	Unknown	Wreck	Unknown	Dead	55.17335	-5.3061	Oceanwise EK001-FN810-03289; HES Canmore

CA no.	Name	Type	Date	Status	Latitude	Longitude	Source & ref. no.
CA4_15	Unknown	Wreck	Unknown	Dead	55.17085	-5.39718	Oceanwise EK001-FN810-03289; HES Canmore
CA4_16	Unknown	Wreck	Unknown	Unknown	55.1478	-5.4633	Oceanwise EK001-FN810-03289; HES Canmore
CA4_17	Unknown	Wreck	Unknown	Unknown	54.91506	-5.73502	Oceanwise EK001-FN810-03289
CA4_18	Unknown	Wreck	Unknown	Unknown	55.18742	-5.39934	HES Canmore
CA4_19	*Bristol Beaufighter X*	Aircraft	1945	Unknown	55.21486	-4.89377	HES Canmore
CA4_20	Underwater rock	Obstruction	n/a	Unknown	55.23241	-4.86264	Oceanwise EK001-FN810-03289
CA4_21	Underwater rock	Obstruction	n/a	Live	55.21914	-4.87662	Oceanwise EK001-FN810-03289
CA4_22	Underwater rock	Obstruction	n/a	Dead	55.21995	-4.87531	Oceanwise EK001-FN810-03289
CA4_23	Underwater rock	Obstruction	n/a	Unknown	55.21978	-4.87763	Oceanwise EK001-FN810-03289
CA4_24	Underwater rock	Obstruction	n/a	Live	55.23642	-4.86349	Oceanwise EK001-FN810-03289
CA4_25	n/a	Findspot - Flints	Prehistoric	n/a	55.23355	-4.86367	HES Canmore
CA4_26	n/a	Findspot - sword	Bronze age	n/a	55.23355	-4.86367	HES Canmore
CA4_27	n/a	Findspot - Whetstone	Unknown	n/a	55.23355	-4.86367	HES Canmore
CA4_28	Horse Rock	Site	n/a	n/a	55.2243	-4.8649	HERWOSAS (Pastmap)

5.70. *Sarah Ann* (**CA4_8**) was a Scottish brig carrying a cargo of timber when it was stranded in Woodland Bay, near Girvan on 4 March 1827. The cargo was recovered and the wooden vessel was salvaged (canmore.org.uk).

5.71. *Laure Denis* (**CA4_9**) was a Scottish schooner of 87 grt, built in 1841 and registered in Irvine. It foundered approximately 12.8km (8 miles) WSW of the Island of Ailsa Craig on

14 May 1852, whilst *en route* from Ardrossan to Dublin with a cargo of coal. Five crew members were lost (canmore.org.uk).

5.72. *Polly* (**CA4_10**) was a Scottish lugger of 4 grt, built in 1884. The vessel was reported to be stranded at Woodland Bay, near Girvan on 2 February 1905 whilst under ballast (canmore.org.uk).

5.73. *Stars* (**CA4_11**) was a three masted wooden schooner of 263 grt, built in 1902 and registered in Riga. *Stars* collided with another vessel on 27 February 1913 whilst carrying a cargo of coal (canmore.org.uk).

5.74. An unknown fishing vessel (**CA4_12**) was reportedly wrecked near Girvan on 19 September 1946; no further information is available The archives of HES record this wreck at the same location as three findspots (see **CA4_25-7**, below). It is likely therefore that the location is arbitrary (canmore.org.uk).

5.75. There are six unknown wrecks within the SCOT-NI4 WSA. One (**CA4_13**) is considered live, whilst two are considered dead (**CA4_14-15**). The status of the remaining three (**CA4_16-18**) is unknown.

5.76. One aircraft (**CA4_19**) is recorded within the WSA. A *Bristol Beaufighter X* from Royal Air Force Operational Training Unit no.5 (RAF 5 OTU) reportedly ditched into the sea on 30 July 1945, c. 9.6km (6 miles) south of Turnberry (canmore.org.uk).

5.77. There are five obstructions in the WSA (**CA4_20-24**). All five are classified as underwater rocks so will not be considered further.

5.78. Three findspots (**CA4_25-27**) are reported at the same location within the WSA, close to the shore at Girvan. Locational information for these finds should therefore be considered arbitrary. They are included here for information only.

5.79. Eight flints (**CA4_25**), including four retouched, were found at Girvan and are now held at the Wilton Lodge Museum, Hawick (canmore.org.uk).

5.80. A Late Bronze Age sword (**CA4_26**) was discovered at Girvan in c. 1897. It is approximately 60cm long, but with the tip broken away, and features six rivet holes (canmore.org.uk).

5.81. A small whetstone of dark micaceous schist (**CA4_27**), pierced at one end by a hole sunk from both sides, was reportedly found at Girvan and exhibited to the Society of Antiquaries, Scotland, in 1911 (canmore.org.uk).

Sites of cultural heritage interest within the WSA at the landfall locations

5.82. One site is located within the WSA at Girvan (see figure 17). *Horse Rock* (**CA4_28**) is a series of linear cropmarks, potentially marking field boundaries or drains and visible in aerial photography (canmore.org.uk). It is situated above MHWS and therefore beyond the remit of this report; it is included here for information purposes.

5.83. No cultural heritage assets are recorded within the WSA at Larne.

6. CONCLUSIONS

6.1. This assessment has established that there are no designated or protected wrecks, nor any scheduled monuments within the CSC of either SCOT-NI3 or SCOT-NI4.

6.2. Seventeen records are located within the SCOT-NI3 CSC, including 16 wrecks and one monument. The WSA contains a further 31 records, including 23 wrecks, three obstructions, one findspot, two monuments, one B-listed building and a designed landscape. The records reported from Port Kale and Port Mora landfall locations are above MHWS and therefore beyond the remit of this report. They are included here for information purposes only.

6.3. The SCOT-NI4 CSC contains seven records of cultural heritage interest, including five wrecks, one aircraft and one monument. A further 21 records are located within the WSA, including 11 wrecks, one aircraft, five obstructions, three findspots and one site. As the latter fall beyond the 500m wide CSC or above MHWS they too are included here for information only.

6.4. The relative scarcity of known and located historic assets within the CSCs and WSAs of both cable routes suggests that the potential to encounter unexpected cultural remains during the proposed development is low. However, given the high volume of marine activity in the area throughout history and the number of reports of losses within both cable routes, it cannot be discounted. This potential will be re-assessed following the archaeological review of project-specific marine geophysics.

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Canmore – National Record of the Historic Environment [accessed August 2020]

https://canmore.org.uk/

Pastmap [accessed August 2020]

https://pastmap.org.uk/

Wreck Site [accessed August 2020]

https://www.wrecksite.eu

8. FIGURES (OVERLEAF)

Legend

- Scot-NI 3 proposed cable route (Port Mora)
- Scot-NI 3 proposed cable route (Port Kale)
- Cable survey corridor 3
- Wider study area 3
- Scot-NI 4 proposed cable route
- Cable survey corridor 4
- Wider study area 4

0 5 10 Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

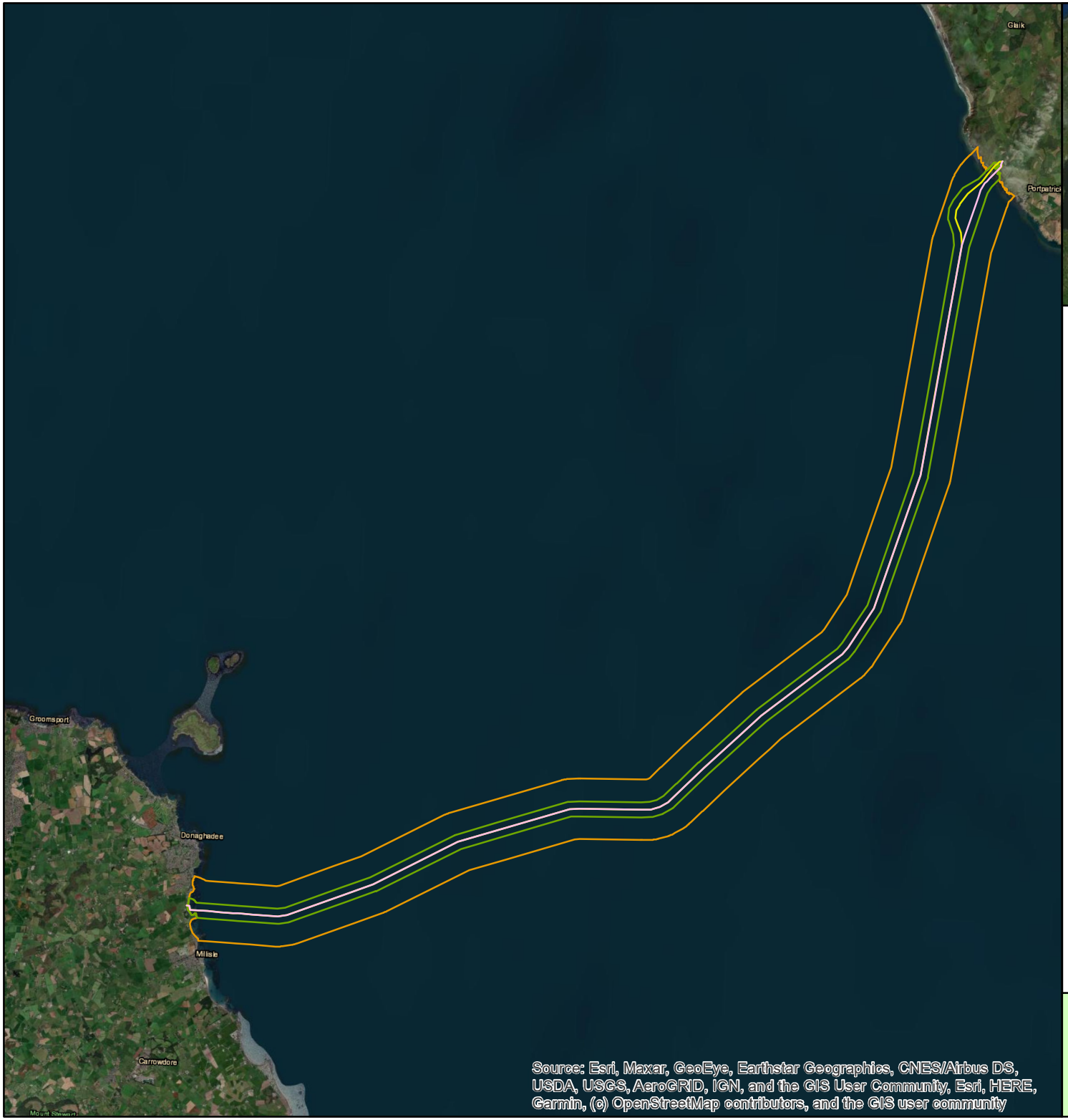
Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE: **SCOT-NI3 & SCOT-NI4: Route overview**

FIGURE NO. **1**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW



Legend

- Scot-NI 3 proposed cable route (Port Mora)
- Scot-NI 3 proposed cable route (Port Kale)
- Cable survey corridor 3
- Wider study area 3

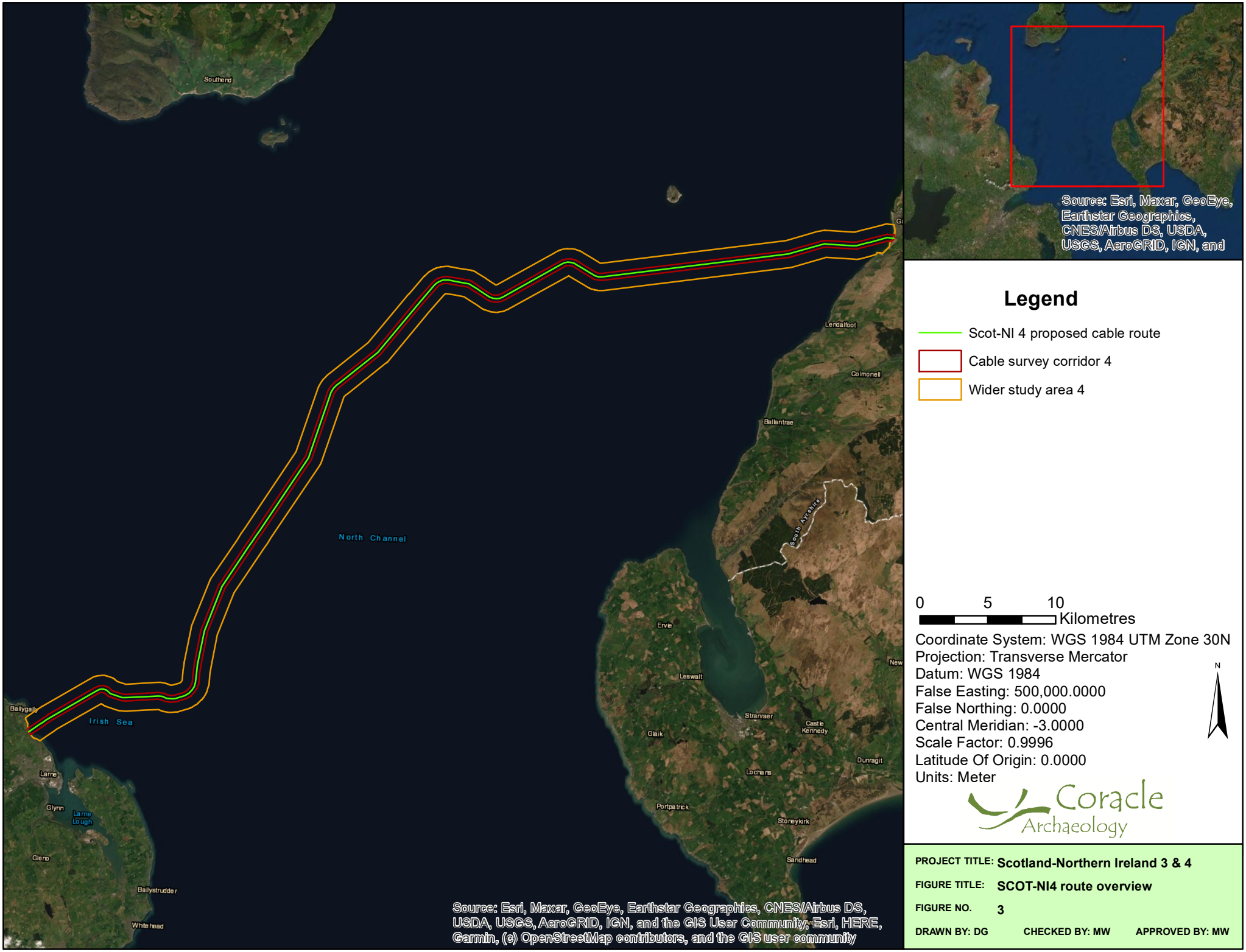
0 3 6 Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Coracle Archaeology

PROJECT TITLE:	Scotland-Northern Ireland 3 & 4
FIGURE TITLE:	SCOT-NI3 route overview
FIGURE NO.	2
DRAWN BY: DG	CHECKED BY: MW APPROVED BY: MW



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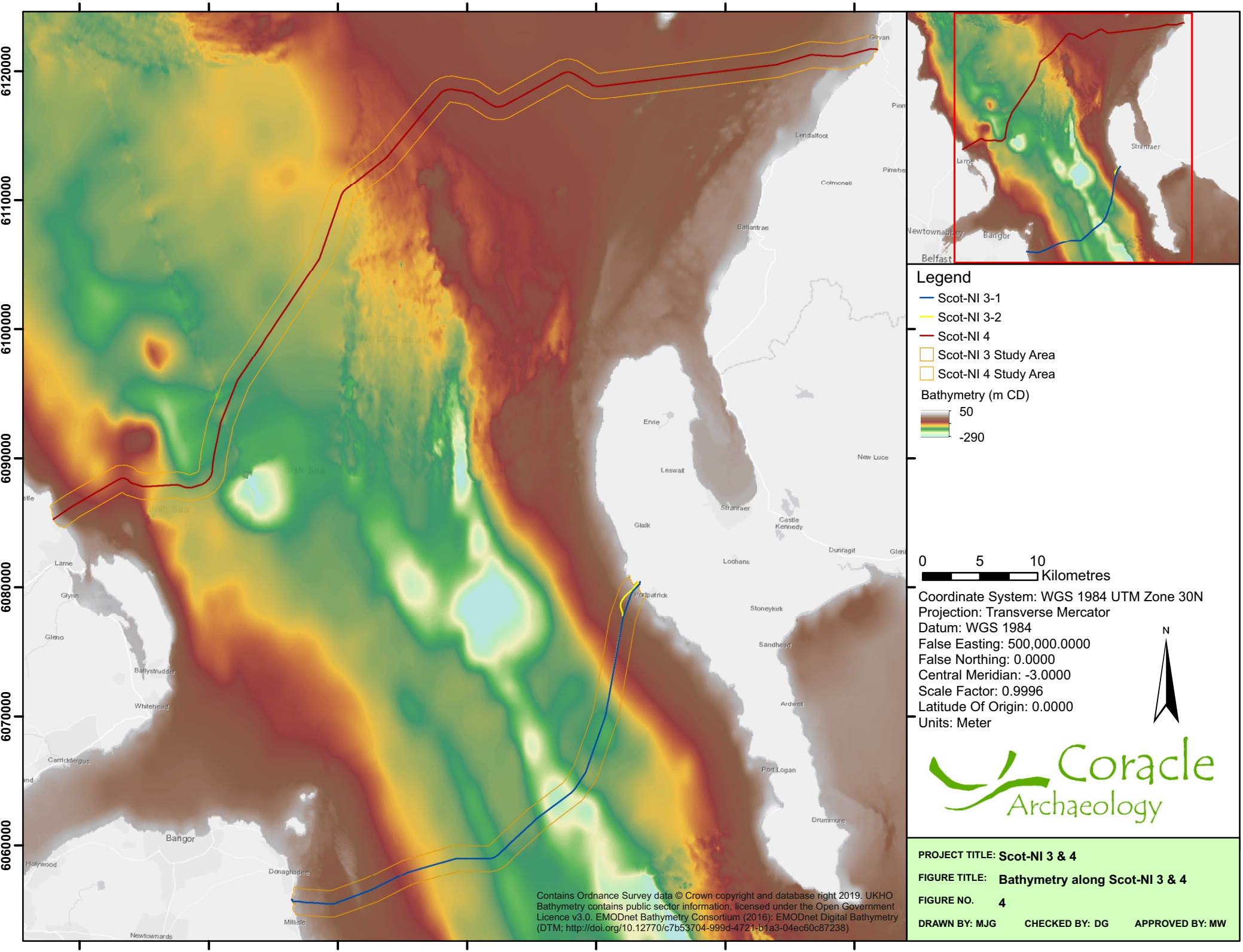
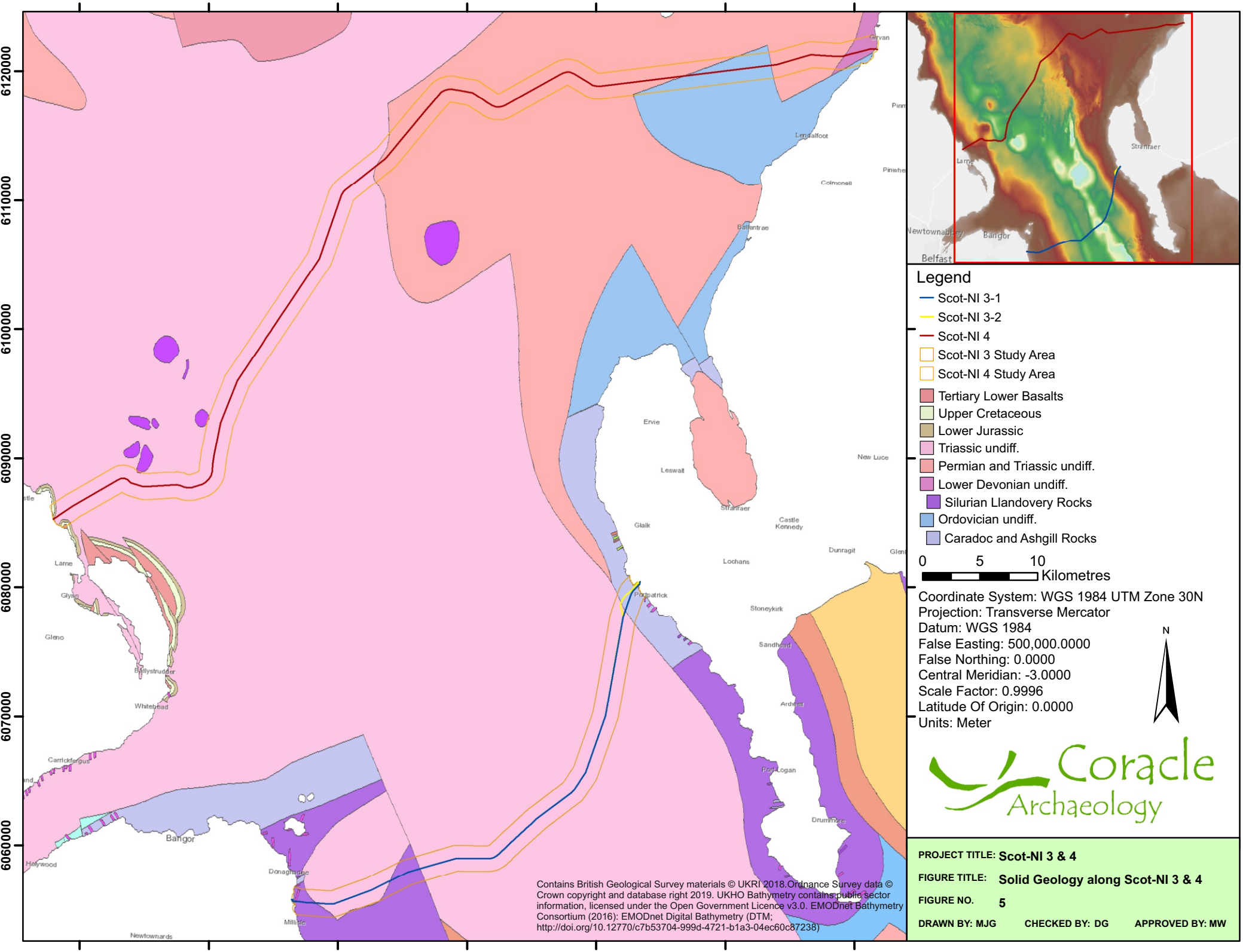
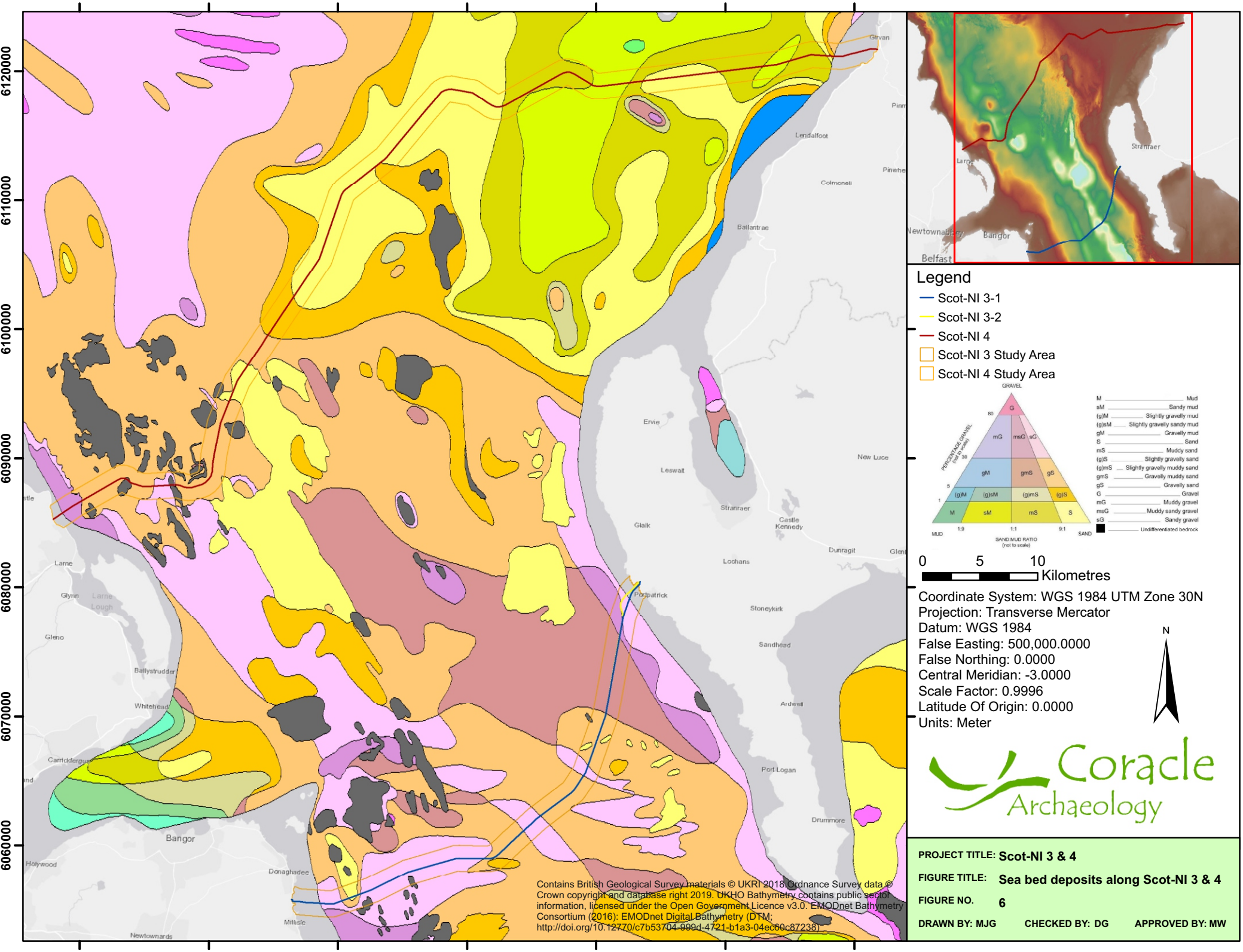
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

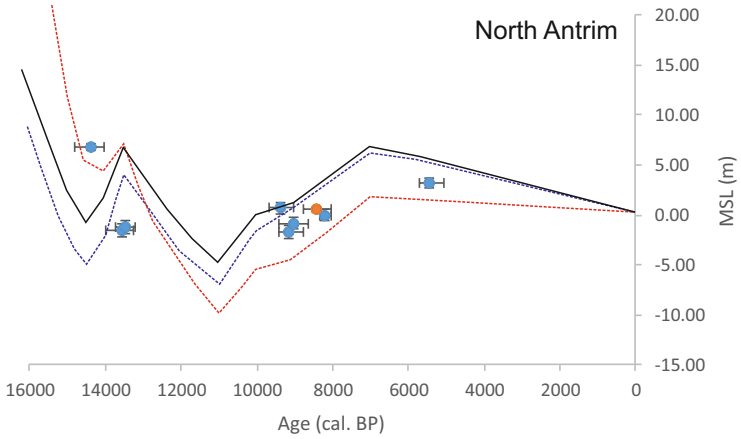
Coracle Archaeology

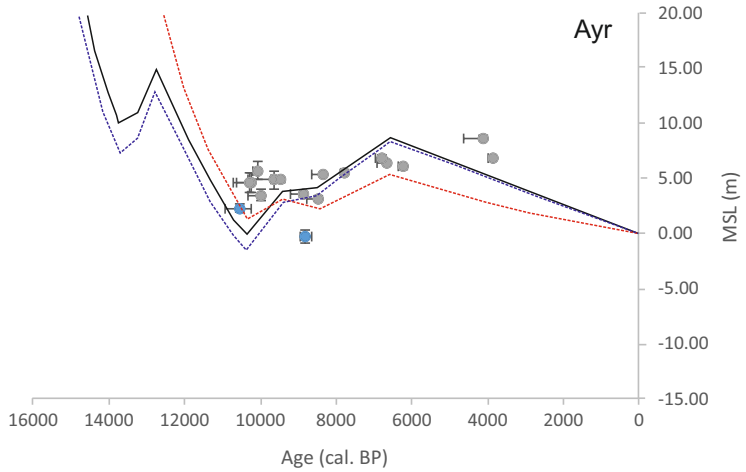
PROJECT TITLE:	Scotland-Northern Ireland 3 & 4
FIGURE TITLE:	SCOT-NI4 route overview
FIGURE NO.	3
DRAWN BY: DG	CHECKED BY: MW APPROVED BY: MW

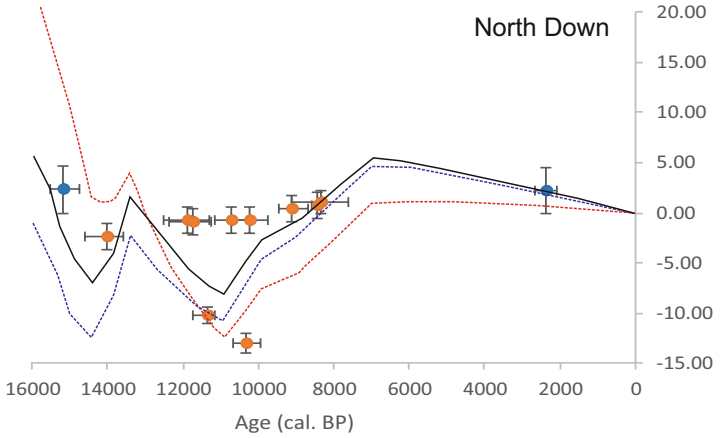


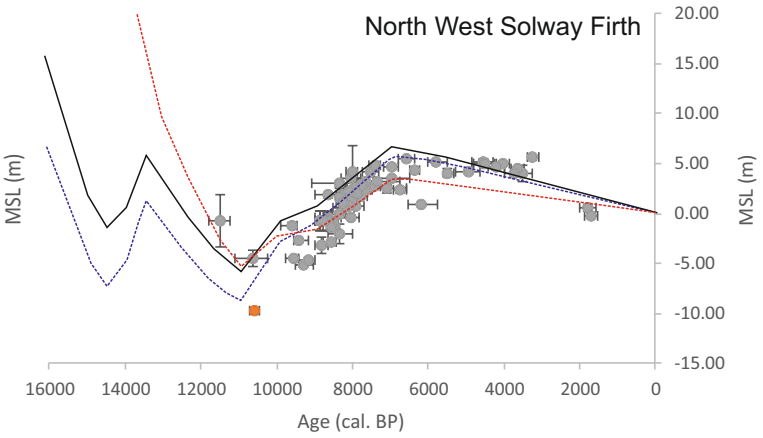


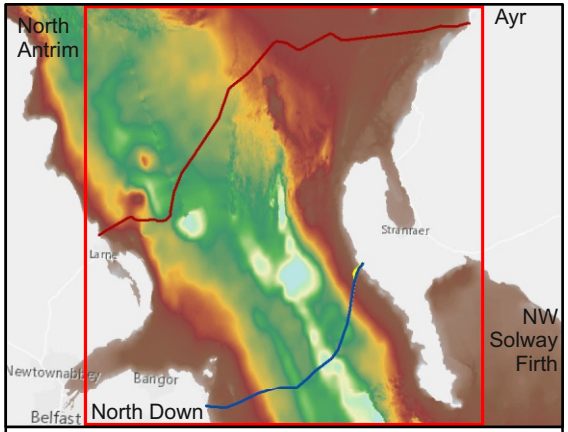












Legend

- Scot-NI 3-1
- Scot-NI 3-2
- Scot-NI 4
- Scot-NI 3 Study Area
- Scot-NI 4 Study Area
- Index Point
- Marine Limiting Date
- Freshwater Limiting Date
- Bradley 2017 GIA
- Bradley 2011 / 2017 GIA
- Kuchar 2012 GIA

0 5 10 Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

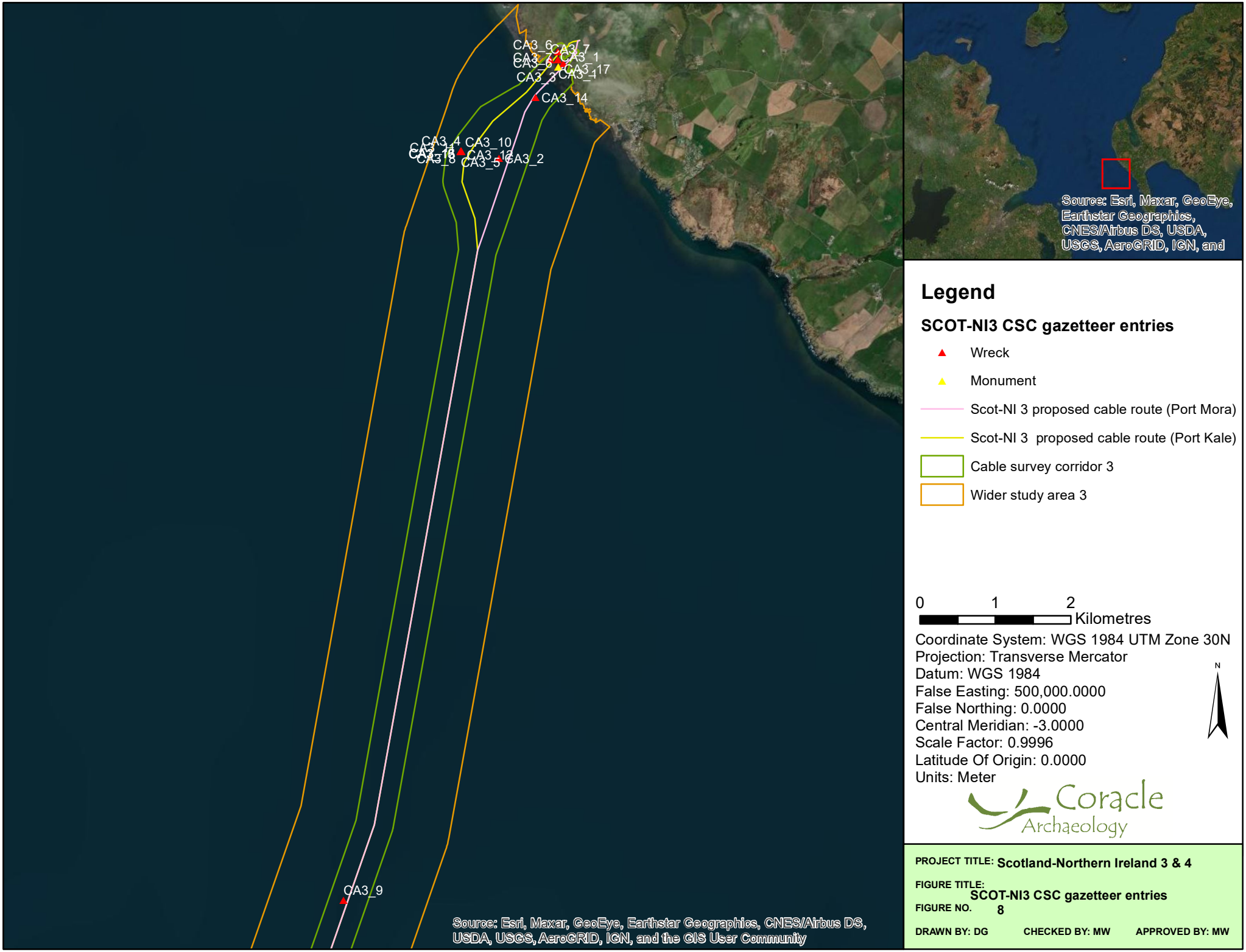
Coracle Archaeology

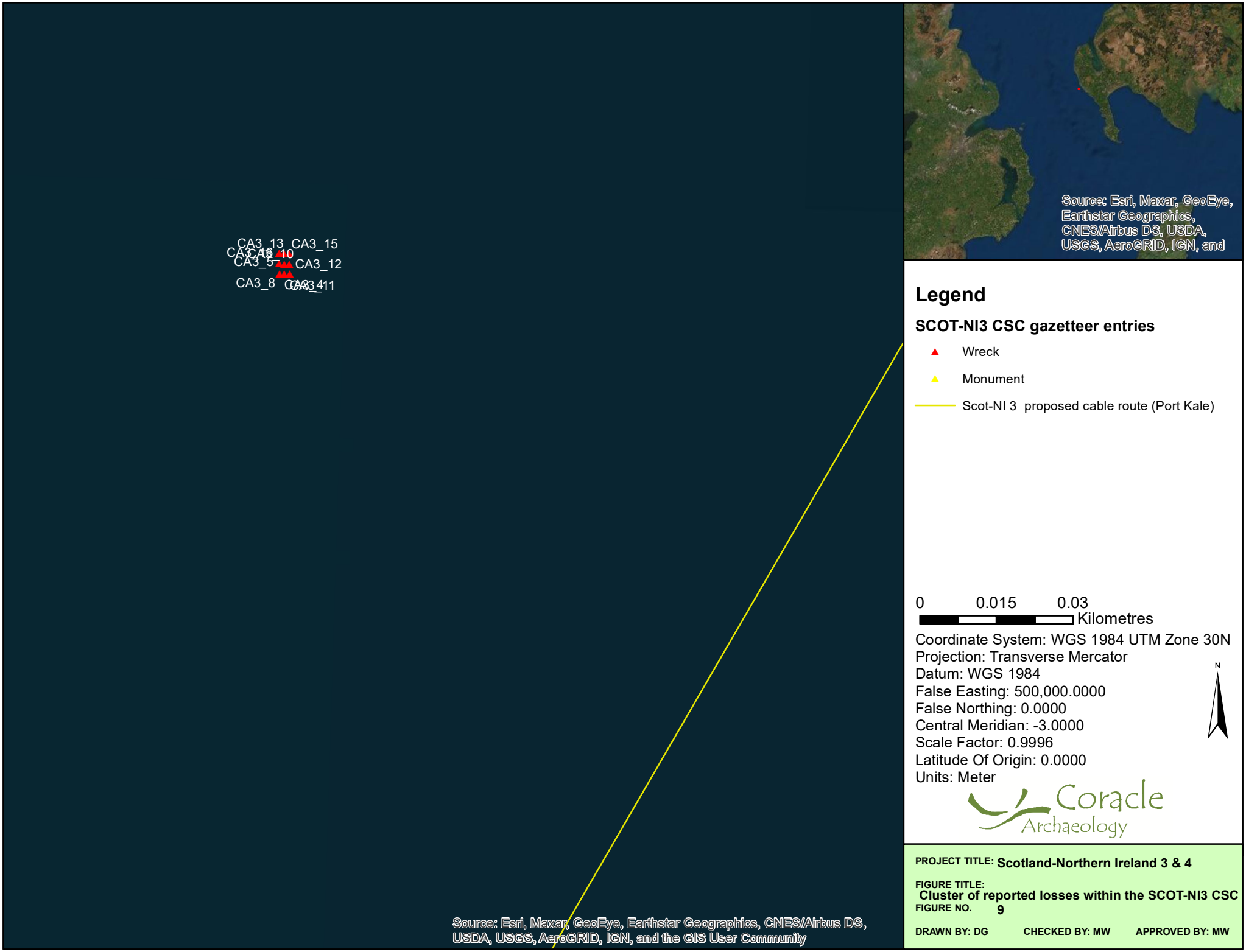
PROJECT TITLE: Scot-NI 3 & 4

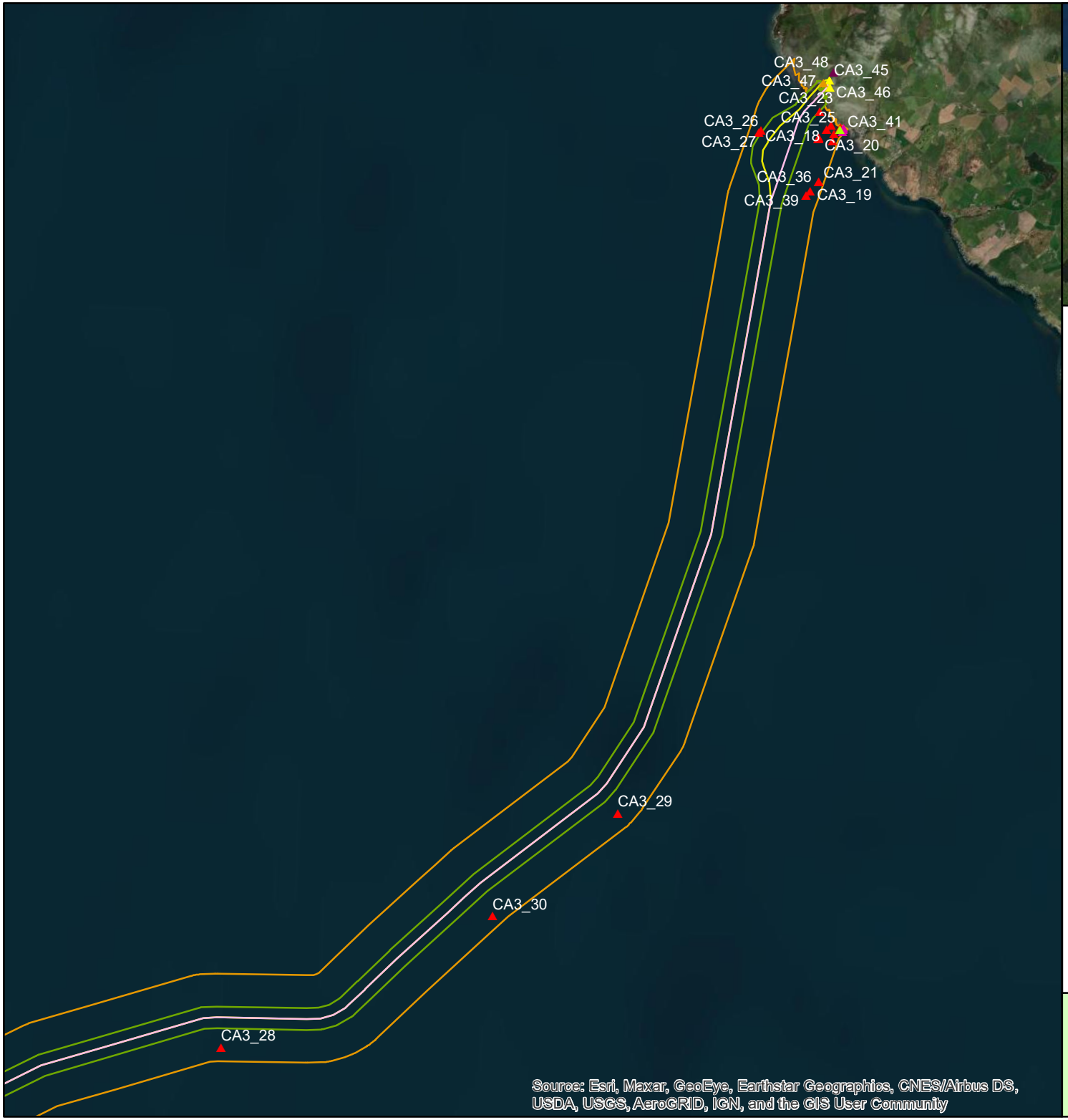
FIGURE TITLE: Sea Level History around Scot-NI 3 & 4

FIGURE NO. 7

DRAWN BY: MJG **CHECKED BY:** DG **APPROVED BY:** MW


CA3_6
CA3_7
CA3_1
CA3_17
CA3_4
CA3_3
CA3_14
CA3_10
CA3_12
CA3_5
CA3_2
CA3_9
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and
Legend
SCOT-NI3 CSC gazetteer entries
Wreck
Monument
Scot-NI 3 proposed cable route (Port Mora)
Scot-NI 3 proposed cable route (Port Kale)
Cable survey corridor 3
Wider study area 3
0
1
2
Kilometres
Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter
N
Coracle
Archaeology
PROJECT TITLE: Scotland-Northern Ireland 3 & 4
FIGURE TITLE: SCOT-NI3 CSC gazetteer entries
FIGURE NO. 8
DRAWN BY: DG
CHECKED BY: MW
APPROVED BY: MW


CA3_13
CA3_15
CA3_5
CA3_12
CA3_8
CA3_11
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and
Legend
SCOT-NI3 CSC gazetteer entries
Wreck
Monument
Scot-NI 3 proposed cable route (Port Kale)
0
0.015
0.03
Kilometres
Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter
N
Coracle
Archaeology
PROJECT TITLE: Scotland-Northern Ireland 3 & 4
FIGURE TITLE:
Cluster of reported losses within the SCOT-NI3 CSC
FIGURE NO. 9
DRAWN BY: DG
CHECKED BY: MW
APPROVED BY: MW



Legend

SCOT-NI3 WSA gazetteer entries

- Wreck
- Obstruction
- Findspot
- Monument
- Building
- Landscape
- Scot-NI 3 proposed cable route (Port Mora)
- Scot-NI 3 proposed cable route (Port Kale)
- Cable survey corridor 3
- Wider study area 3

0 2 4 Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE: **SCOT-NI3 WSA gazetteer entries**

FIGURE NO. **10**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW

Legend

SCOT-NI3 WSA gazetteer entries

- Wreck
- Obstruction
- Findspot
- Monument
- Building
- Landscape
- Scot-NI 3 proposed cable route (Port Kale)
- Dunskey house designed landscape (CA3_48)
- Scot-NI 3 proposed cable route (Port Mora)
- Wider study area 3

0 0.0375 0.075
Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE:
Known historic assets at the Portpatrick landfall

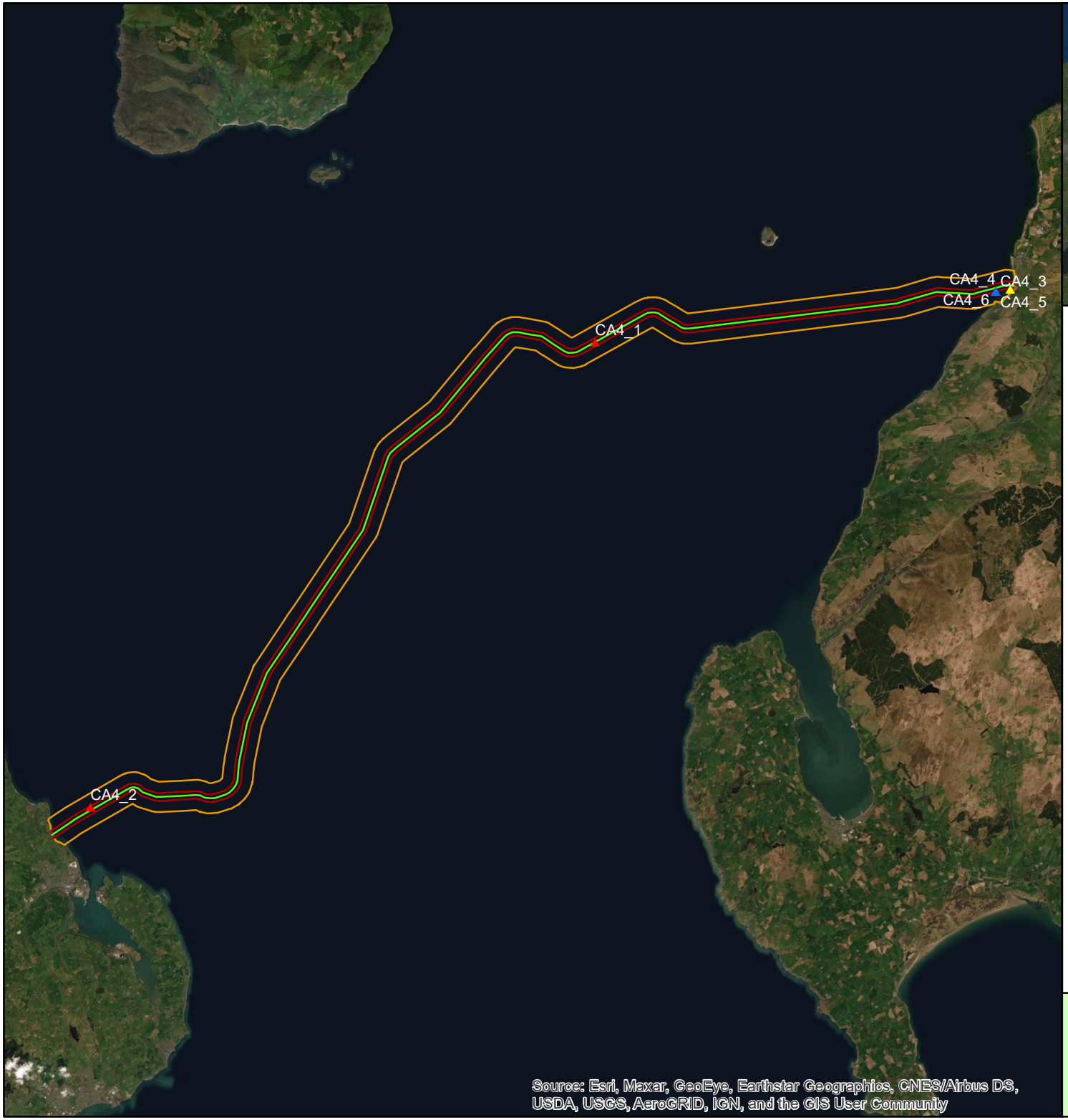
FIGURE NO. **11**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW

Figure 12 (above) Glen Cottage standing stone

Figure 13 Ouchtriemakain cave

Figure 14 Port Kale Cable House



Legend

SCOT-NI4 CSC gazetteer entries

- Wreck
- Aircraft
- Monument
- Scot-NI 4 proposed cable route
- Cable survey corridor 4
- Wider study area 4

0 5 10 Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE: **SCOT-NI4 CSC gazetteer entries**

FIGURE NO. **15**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW

Legend

SCOT-NI4 WSA gazetteer entries

- Wreck
- Aircraft
- Obstruction
- Findspot
- Site
- Scot-NI 4 proposed cable route
- Cable survey corridor 4
- Wider study area 4

0 5 10
Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

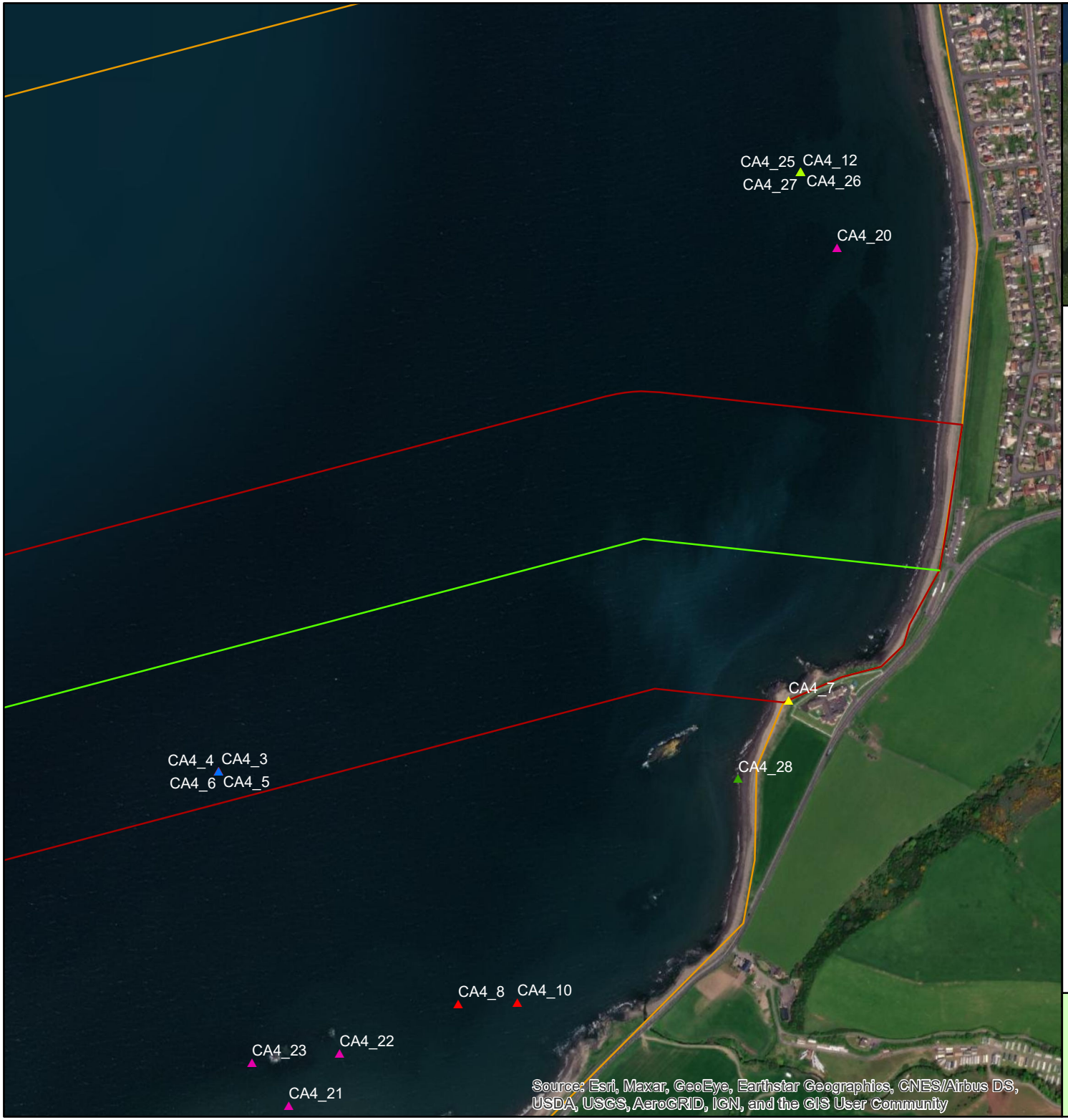
Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE: **SCOT-NI4 WSA gazetteer entries**

FIGURE NO. **16**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW



Legend

SCOT-NI4 gazetteer entries

- Wreck
- Aircraft
- Obstruction
- Findspot
- Site
- Scot-NI 4 proposed cable route
- Cable survey corridor 4
- Wider study area 4

0 0.15 0.3
Kilometres

Coordinate System: WGS 1984 UTM Zone 30N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -3.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Coracle Archaeology

PROJECT TITLE: **Scotland-Northern Ireland 3 & 4**

FIGURE TITLE: **Known historic assets at Girvan landfall**

FIGURE NO. **17**

DRAWN BY: DG CHECKED BY: MW APPROVED BY: MW