ABWP Phase I Decommissioning

Marine Archaeology Technical Report

Volume 3, Appendix 8.1



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Project name ABWP Phase I Decommissioning

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Statement of Authority

Author	Qualifications	Relevant Experience
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Glossary

Term	Meaning
Arklow Bank Wind Park (ABWP) Phase I	Arklow Bank Wind Park (ABWP) Phase I comprises: • Offshore infrastructure seaward of High Water Mark (HWM), including: – Seven Wind Turbine Generators (WTG) with a combined capacity of 25.2 MW; – One meteorological (met) mast; – Inter-array cables connecting the WTGs and met mast; and – One offshore export cable connecting WTG T4 with landfall at HWM; • Onshore infrastructure landward of HWM including: – One onshore cable connecting landfall at HWM with the onshore substation; and – One onshore substation compound, where the onshore substation and ancillary infrastructure are located.
ABWP Phase II	ABWP Phase II comprises: • Offshore Infrastructure, including: – 53 or 47 WTGs and two Offshore Substation Platforms (OSPs) located within the "Array Area"; – Inter-array cables connecting WTGs with the OSPs; and – Two offshore export cables; • Onshore grid connection infrastructure, including a 220 kV substation at Shelton Abbey with an associated connection to the existing National Electricity Transmission Network; • Operations and Maintenance Facility (OMF) at South Dock, Arklow Harbour; and • EirGrid Upgrade Works.
Archaeological Exclusion Zone (AEZ)	Defined protective buffer area around archaeological feature within which no works should take place without the consent of the archaeological regulator

Term	Meaning
Archaeological Impact Assessment	Archaeological report that sets out the known archaeology based on existing records and/or commissioned studies, and assesses the impacts arising from proposed works and make archaeological recommendations in keeping with the existing archaeological legislation and expectations of the archaeological regulator
Archaeology Management Plan	Document that sets our clear protocols to follow in the course of a project to ensure compliance with archaeological legislation by all parties, and mitigation of works in accordance with existing national monuments legislation
Arklow Energy	Arklow Energy Limited, the entity seeking planning permission for the Proposed Works, i.e. the applicant.
Baseline	A description of the relevant aspects of the current state of the environment (baseline scenario) (EIA Directive 2014/52/EU).
Bathymetry	Ocean's depth relative to sea level.
Before Present	The date of 1950 AD that is set by the scientific dating community from which measurements are calculated backwards to determine the age of an organic object that is subject to radiocarbon dating analysis
Conservation Objective (CO)	A specified population size and distribution objective for a species, or a specified area and quality objective for a habitat, to ensure that a site contributes as best as possible to achieving favourable conservation status at national, biogeographical or European level (Article 1(k) of the Habitats Directive (92/43/EEC)).
Decommissioning	The final closing down and putting into a state of safety of a development, project or process when it has come to the end of its useful life (EPA, 2022).
Easting	Compass direction set at 90 degrees
Environmental Impact Assessment (EIA)	Process of assessment of the effects of a project or development proposal on the environment. In the planning area, it is undertaken by a planning authority or An Coimisiún Pleanála during the consideration of applications for planning permission, taking account of an Environmental Impact Assessment Report (EIAR). The projects which require EIA are listed in Annex I and Annex II of the EIA Directive, as amended (Office of the Planning Regulator, n.d.).
Environmental Impact Assessment Report (EIAR)	A report or statement of the effects, if any, that Proposed Works, if carried out, would have on the environment. It is prepared by the developer to inform the EIA process (Office of the Planning Regulator, n.d.).
Exclusive Economic Zone (EEZ)	Area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part (UNCLOS, 1982). The EEZ in Ireland extends up to 200 nautical miles (nm) from the outer edge of the territorial sea.
Foreshore	The bed and shore, below the line of high water of ordinary or medium tides, of the sea and of every tidal river and tidal estuary and of every channel, creek, and bay of the sea or of any such river or estuary. Its outer limit is coterminous with the seaward limit of the territorial sea (Foreshore Act 1933 (as amended)), which is at a distance of 12 nm from the nearest point of the baseline or otherwise prescribed (Maritime Jurisdiction Act 2021 (as amended)).
Impact	A change brought about by the Proposed Works.
Indirect impact	Impacts on the environment, which are not a direct result of the Proposed Works, often produced away from (the Offshore / Onshore Site) or as a result of a complex pathway (EPA, 2022).
Inter-array cables	Subsea power lines that link individual wind turbine generators (WTGs) together in an offshore wind farm, forming an electrical network. In ABWP Phase I, inter-array cables connect WTGs and the met mast to each other and have an overall length of 7.4 km.
Irish Transverse Mercator	Map projection that flattens Ireland into one zone and enables accurate positioning

Term	Meaning
List of Waste (LoW)	The classification system used to assign waste codes to hazardous and non-hazardous waste.
Lowest Astronomical Tide (LAT)	Exact, lowest theoretical sea level that can be predicted to occur under average meteorological conditions.
Meteorological (Met) mast	A mast with a number of meteorological sensors located at different heights to record meteorological and sea condition data
Monitoring	The periodic or continuous observation of biodiversity indicators and of other parameters that may affect biodiversity for any changes that may occur over time, so as to confirm predictions made with respect to likely effects and identify adverse changes that may require remedial action (Office of the Planning Regulator, n.d.).
Natura Impact Statement (NIS)	A statement, for the purposes of Article 6(3) of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites. This is prepared by the applicant (Office of the Planning Regulator, n.d.).
Offshore export cable	Subsea power cable that transports the total generated power from an offshore wind farm to the onshore power grid. In ABWP Phase I, the offshore export cable connects the wind turbine generator (WTG) T4 to landfall with an approximate overall length of 15.6 km. At landfall, the offshore export cable transitions to the onshore cable connecting to the onshore substation.
Offshore Site	Part of the Site where Proposed Works Offshore are proposed to take place. In this application for planning permission, the Offshore Site comprises the Sub Lease Area, where the ABWP Phase I wind turbine generators (WTGs), met mast and inter-array cables are located, and the offshore export cable 10 m corridor connecting WTG T4 to the landfall at high water mark (HWM) near Arklow Harbour.
Ordnance Datum	Defined heights above sea level determined by the Ordnance Survey
Planning permission	Formal, legal approval required from a local planning authority or An Coimisiún Pleanála (ACP) to carry out development. The Proposed Works require planning permission submitted from ACP under Section 291 of the Planning and Development Act 2000, as amended.
Proposed Works	The Proposed Works include decommissioning of ABWP Phase I offshore infrastructure (Proposed Works Offshore) and decommissioning of ABWP Phase I onshore infrastructure (Proposed Works Onshore).
Scour protection	Engineered barrier typically placed on the seabed around WTG foundations and subsea cables to prevents sediment erosion caused by accelerated water currents and waves, safeguarding the WTG's stability and protecting subsea cables. In ABWP Phase I, scour protection was originally introduced in the form of rock armour, however, this proved ineffective, and was removed in 2005. Since then, scour protection has been introduced through sandbags.
Side scan sonar (SSS)	Underwater remote sensing device that captures an image of the seabed surface across the extent of the area over which the device is deployed
Source	The activity or place from which an effect originates (EPA, 2022)
Sub Lease Area	Area where the ABWP Phase I WTGs, met mast and inter-array cables are located, as defined in the Sub Lease granted by Sure Partners Limited (SPL) to Arklow Energy Limited (Arklow Energy) to construct and operate ABWP Phase I.
Underwater Archaeological Impact Assessment	Archaeological report particular to the marine and underwater environments that sets out the known archaeology based on existing records and/or commissioned studies, and assesses the impacts arising from proposed works and make archaeological recommendations in keeping with the existing archaeological legislation and expectations of the archaeological regulator

Term	Meaning
Universal Transverse Mercator	Map projection that flattens the Earth into 60 zones and enables accurate positioning. Unlike Irish National Grid and Irish Transverse Mercator, Universal Transverse Mercator extends across the marine environment and links seamlessly to neighbouring countries and jurisdiction
UXO	Unexploded Ordnance, generally associated with World War I and World War II hostilities
Waste	Any substance or object belonging to a category of waste specified in the First Schedule or for the time being included in the European Waste Catalogue which the holder discards or intends or is required to discard, and anything which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste until the contrary is proved (Waste Management Act 1996 (as amended)).
Wind Turbine Generator (WTG)	Structure that converts the kinetic energy of ocean winds into electrical energy. ABWP Phase I includes seven GE Energy 3.6s WTGs with a rated capacity of 3.6 megawatts (MW) per WTG.

Acronyms

Acronym	Meaning
ABWP	Arklow Bank Wind Park
ACP	An Coimisiún Pleanála
AEZ	Archaeological Exclusion Zone
AIA	Archaeological Impact Assessment
AMP	Archaeology Management Plan
BP	Before Present
CEA	Cumulative Effect Assessment
DAHGI	Department of Arts, Heritage, Gaeltacht and the Islands
DCCAE	Department of Communications Climate Action and the Environment
DCEE	Department of Climate, Energy and the Environment
DHLGH	Department of Housing, Local Government and Heritage
E	Cardinal direction, East
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
EU	European Union
GR	Green Rebel
GSI	Geological Survey of Ireland
HSI	Historic Shipwreck Inventory
ICOMOS	International Council on Monuments and Sites
IEMA	Institute of Environmental Management and Assessment
IROPI	Imperative Reasons of Overriding Public Interest
ITM	Irish Transverse Mercator
MAC	Maritime Area Consents
MARA	Maritime Area Regulatory Authority
MDS	Maximum Design Scenario
MHWS	Mean High Water Springs

Acronym	Meaning
MLWS	Mean Low Water Springs
MSBDL	Mean Seabed Level
MSFD	Marine Strategy Framework Directive
N	Cardinal direction, North
NE	Cardinal direction, Northeast
NMI	National Museum of Ireland
NMS	National Monuments Service
NW	Cardinal direction, Northwest
O&M	Operations and Maintenance
OD	Ordnance Datum
OMF	Operations and Maintenance Facility
OSP	Offshore Substation Platform
S	Cardinal direction, South
SAC	Special Area of Conservation
SE	Cardinal direction, Southeast
SPA	Special Protection Area
SSS	Side Scan Sonar
SW	Cardinal direction, Southwest
UAIA	Underwater Archaeological Impact Assessment
UKHO	United Kingdom Hydrographic Office
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTM	Universal Transverse Mercator
UXO	Unexploded Ordnance
W	Cardinal direction, West
WIID	Weck Inventory of Ireland
WTG	Wind Turbine Generator
WW1	World War 1
ZoI	Zone of Influence

Units

Unit	Meaning
Km	Kilometre
kV	Kilovolts
m	metre
MW	Megawatts
nm	Nautical mile

EXECUTIVE SUMMARY

This technical report presents an archaeological review and interpretation of the marine archaeological potential and risk associated with the proposed decommissioning of Arklow Bank Wind Park (ABWP) Phase I offshore infrastructure (hereafter the Proposed Works Offshore).

The marine archaeology study area extends 500 m beyond the Offshore Site (where Proposed Works Offshore will take place), to ensure adequate context is provided.

The sources draw on the ABWP Phase II Environmental Impact Assessment Report (EIAR) (SSE Renewables, 2026) and updated data sets where known.

Arklow Bank sand bank, where most of ABWP Phase I offshore infrastructure is located (i.e. within the Sub Lease area, where wind turbine generators (WTGs), met mast, inter-array cables and associated scour protection are located), and the sea area to the west, are areas of high archaeolgical potential both in terms of evidence for prehistoric activity observed on the sand bank, and in terms of historic shipwrecks, of which 78 sites have been located.

The Offshore Site boundary reflects the same narrative, including four of the known shipwreck locations and two prehistoric flint tools.

Of the shipwreck sites, W02650 and W0278 lie within the offshore export cable corridor and may be subject to direct impacts from the Proposed Works Offshore.

The source locations for the two flint tools recovered during dredging operations carried out during ABWP Phase I construction are close to WTG T5 and lie within the Offshore Site boundary.

The assessment of impacts and identification of mitigation / management measures are developed in **Volume 2, Chapter 8: Marine Archaeology** of the EIAR.

1 INTRODUCTION

1.1 Overview

1.1.1.1 Arklow Energy Limited (Arklow Energy) is seeking planning permission to decommission Arklow Bank Wind Park (ABWP) Phase I (referred to hereafter as 'the Proposed Works'). The Proposed Works include decommissioning of ABWP Phase I offshore infrastructure (Proposed Works Offshore) and decommissioning of ABWP Phase I onshore infrastructure (Proposed Works Onshore).

1.1.1.2 This technical report aims to present an archaeological review and interpretation of the marine archaeological potential and risk associated with the Proposed Works Offshore, and informs Volume 2, Chapter 8: Marine Archaeology of the Environmental Impact Assessment Report (EIAR).

1.1.1.3 This technical report is informed by:

- **Volume 2, Chapter 1: Introduction; and**
- **Volume 2, Chapter 3: Proposed Works Description;**

1.1.1.4 This technical report is inclusive of its own appendices, which list the known archaeological assets within and in proximity to the Offshore Site.

1.1.1.5 The marine archaeology study area extends 500 m beyond the Offshore Site boundary, which includes the Sub Lease area within the Arklow Bank sand bank (where wind turbine generators (WTGs), met mast, inter-array cables and scour protection are located) and the offshore export cable corridor, in order to assess the immediate context of both the Arklow Bank sand bank and the sea area to the shore. The marine archaeology study area represents a 5.2 km long by 1.3 km wide expanse in the central area of the Arklow Bank sand bank, and an approximately 1 km wide corridor that follows the offshore export cable eastwards to shore, see **Section 2**.

1.2 Methodology

1.2.1 Policy Context

1.2.1.1 The principal legislative, guidance and policy context that operates across the marine environment in Ireland is governed archaeologically by the requirements of the National Monuments Act 1930-2004, which is being replaced by the Historic and Archaeological Heritage and Miscellaneous Provisions Act (2023). This technical report has been prepared considering the legislative procedures and guidelines listed in **Table 1.1**.

Table 1.1: Principal Legislation. Policy and Guidance to inform known marine archaeology

Legislation / Policy / Guidance	Reference	Geographic Coverage
The National Monuments Act 1930-2004; Historic and Archaeological Heritage and Miscellaneous Provisions Act	Govt. of Ireland, 1930 – 2004; 2023	Ireland, Republic of
Archaeology and Flood Relief Schemes Guidelines	DHLGH, 2023b	Ireland, Republic of
Advice to the Public on Ireland's Underwater Archaeological Heritage	DHLGH, 2023a	Ireland, Republic of
Marine Area Planning Act 2021	Govt. of Ireland, 2021	Ireland, Republic of
The Foreshore Act 1933 and 2014	Govt. of Ireland, 1933 updated 2014	Ireland, Republic of
Heritage Act, 1995	Govt. of Ireland, 1995	Ireland, Republic of
European Convention on the Protection of the Archaeological Heritage (Valetta Convention)	EU, 1992	EU

Legislation / Policy / Guidance	Reference	Geographic Coverage
Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) Framework and Principles for the Protection of the Archaeological Heritage	DAHGI, 1999a	Ireland, Republic of
DAHGI Policy and Guidelines on Archaeological Excavation	DAHGI, 1999b	Ireland, Republic of
Collaborative Offshore Wind Research Into the Environment (COWRIE) Guidance for Assessment of Cumulative Impacts on the Historic Environment from Offshore Renewable Energy	COWRIE, 2007	UK
Guidance on Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) Preparation for Offshore Renewable Energy Projects.	DCCAE, 2017	Ireland, Republic of, including foreshore, Exclusive Economic Zone (EEZ) and Irish Continental Shelf
International Council on Monuments and Sites (ICOMOS) guidance, non-governmental international organisation dedicated to the conservation of the world's monuments and sites	ICOMOS, 2011	Global
United Nations Educational, Scientific and Cultural Organization (UNESCO) guidance, to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity	UNESCO, 1972	Global

1.2.2 Desktop Study

1.2.2.1 Information on marine archaeology within the study area was collected through a detailed desktop review of existing studies and datasets. The key data sources reviewed are indicated in **Table 1.2**.

Table 1.2: Principal sources to inform known marine archaeology.

Source	Year	Author
Archaeological monitoring of dredging operations, Turbine Five Access Channel, 03E1101, report of Boland Archaeological Services for GE Wind Energy	2004	Campbell, K.
Arklow Bank Wind Park Archaeogeophysical Investigation, post installation survey, 04R056, 04D022, report of Boland Archaeological Services	2004	Boland, D.
Shipwreck inventory of Ireland: Louth, Meath, Dublin and Wicklow (Dublin: Stationary Office)	2008	Brady, K.
Export Power Cable – burial survey, Island Group report for GE Wind Energy	2010	Greenwood, S.
Underwater inspection report, Arklow Banks Wind Farm 2015, Export cable and wreck inspection, report of Marine Specialists for GE Wind Energy	2015	McKeown, J.
Marine geophysical survey, Arklow Waste Water Marine Outfall, 16R0219', report of ADCO Ltd. https://water.widen.net	2017	Brady, N.
Historic Shipwreck Inventory, also known as the Wreck Inventory or Ireland, online portal: https://dahg.maps.arcgis.com	2018	Department of Housing, Local Government and Heritage (DHLGH)
Underwater archaeological inspections, Arklow Waste Water Marine Outfall, 17D0078, 17R0197', unpublished report of ADCO Ltd	2019	Brady, N.
Excavations Bulletin: https://excavations.ie/	2020	Isabel Bennett
INFOMAR Survey: www.infomar.ie	2020	INFOMAR
Sites and Monuments Record: https://webgis.archaeology.ie/historicenvironment/	2020	DHLGH
Historic Ordnance Survey Maps: http://map.geohive.ie/mapviewer.html	2020	DHLGH
Arklow Bank Wind Park 2 EIAR Chapter 18 Marine Archaeology and Cultural heritage and supporting appendices 18.1, etc.	2026	Brady, N.

1.2.2.2 The archaeolgical potential of the Arklow Bank sand bank has been informed principally by Admiralty Charts and local diver records of shipwrecks discovered on the sand bank until Arklow Energy started commissioning surveys of the sand bank in the early 2000s in advance of constructing the ABWP Phase I project, the results of which were fed into the national database of the Historic Shipwreck Inventory (HSI) maintained by the National Monuments Service (NMS) at the Department of Housing, Local Government and Heritage (DHLGH). The Inventory for four counties, including Wicklow, was published in 2008 by the NMS (Brady, 2008; pp 448–496). More recent records are contained in the Wreck Inventory of Ireland (WIID), accessible as an online portal maintained by the NMS and updated to 2023. The Irish National Seabed Survey, INFOMAR, is a further resource that is accessible online. Additional sources consulted include historic Ordnance Survey maps and Admiralty Charts, along with the Topographical Files in the National Museum of Ireland, which may contain records of marine-related finds reported to the Museum.

1.2.2.3 These sources informed the Marine Archaeology and Cultural Heritage chapter of the ABWP Phase II EIAR (SSE Renewables, 2026), which also absorbed marine geophysical surveys and marine geotechnical investigations commissioned for the ABWP Phase II project.

1.2.2.4 A final data set commissioned for the present project is also considered; namely the Benthic/Live Habitat Cable Survey (2026), which provides an up-to-date report on the nature of the seabed within the Offshore Site.

2 BASELINE ENVIRONMENT

2.1 Desktop Review

2.1.1 Seabed Topography

2.1.1.1 The Arklow Bank sand bank is one of a series of sand banks that run along the east coast of Ireland from Dublin to Wexford. It runs parallel with the coast and lies off counties Wicklow and Wexford, between 7 km at its north end and 12 km at its middle section and south end. The sand bank extends continuously for approximately 25 km, is approximately 1.5 km wide at its base and 500 m wide at its top. It is oriented north-northeast/south-southwest. Water depth on the sand bank varies between 2 m and 25 m (Gavin and Doherty Geosolutions, 2019). To the west of the sand bank, the water depth varies between 22 m and 35 m, being deepest in the southern part (Gavin and Doherty Geosolutions, 2019, p. 24). To the east of the sand bank, is the Irish Sea and St George's Channel, where the water depth varies between 60 m and 100 m.

2.1.1.2 Arklow Bank sand bank is situated geographically in an area known as the Irish Platform, which occupies a 20 km to 30 km wide corridor off Ireland's east coast (Gavin and Doherty Geosolutions, 2019, p. 24). The seabed in the area is dominated by sand and gravel deposited by the abating ice front during the last Glaciation (pre-12,000 Before Present (BP)[1]). The sand bank exists southeast of the inferred limit of the Delgany Moraine, based on known seabed exposures although this does not discount the possibility of an inferred morainic core at Arklow Bank sand bank. The surface sediment is mobile, formed due to reworking following relative sea level rise post-10,000 BP. Areas around the sand bank are also characterised by mobile sand overlaying glacial clays. To the west of the sand bank, gravels are exposed on the seabed.

2.1.2 Submerged Prehistoric Archaeological Potential

2.1.2.1 The south coast of Ireland is associated with the potential for prehistoric landscapes to be discovered as submerged lenses in what is a drowned landscape. The southeast coast, which includes the Arklow Bank, where the Offshore Site is located, does not fall into this category. Nevertheless, there is potential for remains for earlier finds to be discovered associated with the morainic material. This is supported by the recovery of two worked pieces of flint during archaeological monitoring undertaken during ABWP Phase I construction works adjacent to WTG T5 (Campbell, 2004; Westley and Woodman, 2020, p. 28). One piece (reference 03E1101:3) was identified as a crude scraper, while the other piece (03E1101:4) was a core that would have served as the basis for making stone tools. Both pieces were recovered from dredged risings and were collected along with several pieces of glazed earthenware pottery of much later date. The dredging took place at WTG T5, where a 200m long channel was cut in shallow waters across the uppermost level of the sand bank, within a 400 m long by 60 m wide footprint aligned northeast/southwest that reached 80 m west of WTG T5 and 320 m east of the turbine (see **Figure 5** and area is mapped under the catalogue entry in **Appendix C**). The pieces highlight the potential for prehistoric remains to be associated with the surface levels of the sand bank. Computer-generated modelling by the Geological Survey of Ireland of likely coastlines during early prehistory suggests that the shallows dredged across to provide access to WTG T5 was an exposed surface some 8,000 year BP (**Figure 5**). This is a time within the Later Mesolithic period (8,700-6,000 BP) in Ireland, when early inhabitants practised a hunter-fisher-gatherer existence, focussed on accessible coastal areas and river systems.

[1] BP refers to Before Present, which is set at 1950.

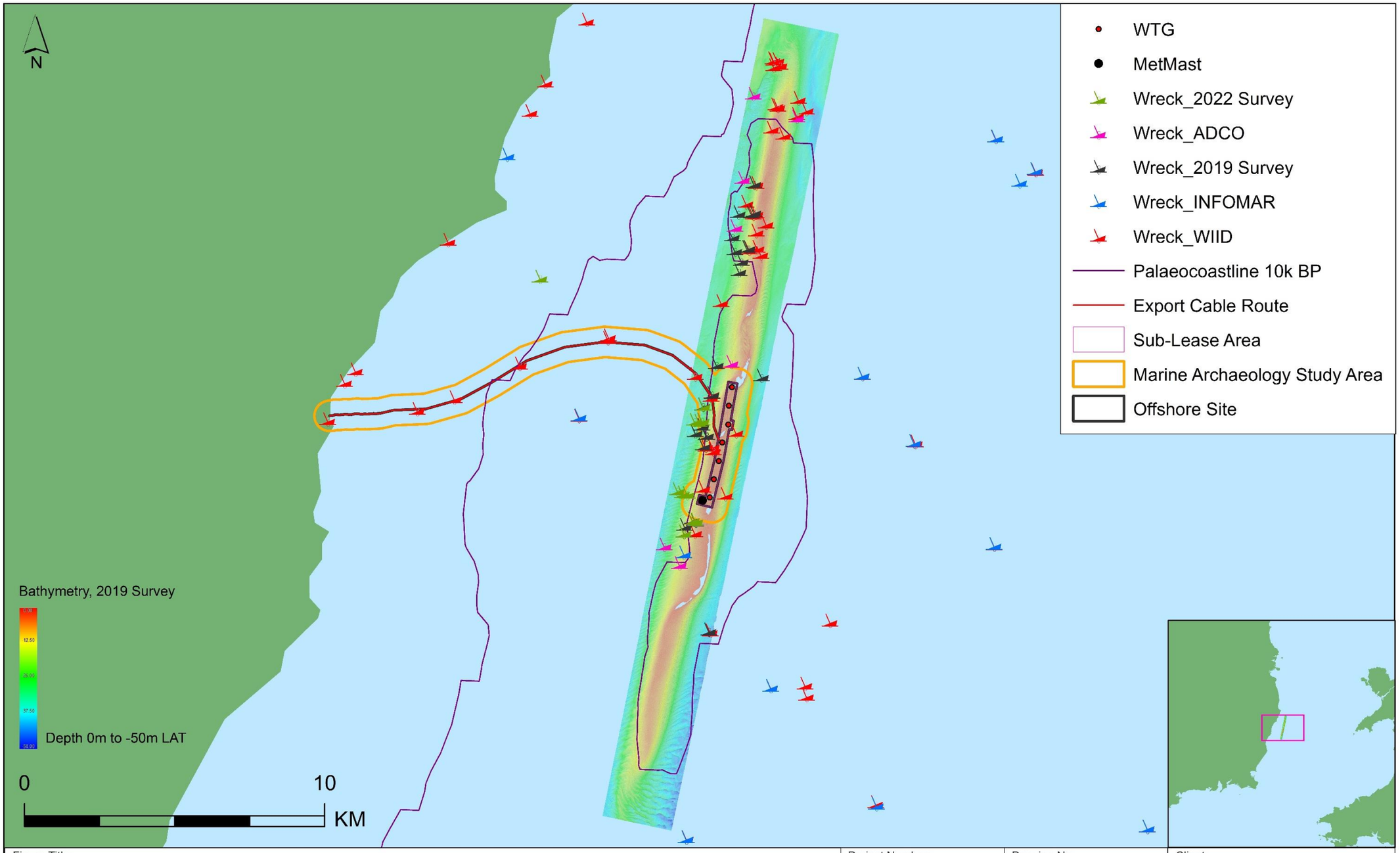


Figure Title: **Arklow Bank sand bank and distribution of known shipwreck sites**	Project Number: **ADCO26/006rv**	Drawing No: **1**	Client: **Venterra Group for Arklow Energy**
Project Name: **Arklow Bank Wind Park 1 Decommissioning**	Date: **28/07/2026**	Rev: **00**	ADCO
	Scale: **1:120,000 @ A3**	Drawn: **NB** / Checked: **NB**	

Figure 1: Arklow Bank and distrubution of known shipwreck sites, with WTGs and offshore export cable route indicated.

2.1.3 Historic Shipwrecks

2.1.3.1 The offshore sand banks along Ireland's east coast are hazardous to shipping, and historic shipwrecking events are associated with them. Such events started to be recorded systematically after *c.* 1750, which represents the burgeoning hey-day of pre-modern navigation but does not account for wrecking events that would have occurred earlier. There are 115 historic wrecking events associated with the Arklow Bank sand bank and its immediate sea area (see **Appendix A** for recorded wrecking events). This represents a significant number of wreckings over what is a relatively small sea area. It is usual for the number of recorded wrecking events to far exceed the number of known or charted shipwreck locations for reasons associated with record keeping and the survivability of wreckage on the seabed. However, Arklow Bank sand bank and its associated sea area stands out as a location where this pattern is somewhat different because there are currently 78 known shipwreck sites located directly on or immediately beside the sand bank and in the sea area to the west (**Figure 1**; see **Appendix B** for known shipwreck locations). As a result, Arklow Bank sand bank is considered a location of very high archaeological potential.

2.1.3.2 There are 11 wrecking events associated with the 18th century. Twelve wreckings occurred in the 20th century up to 1939, and 90 recorded wreckings occurred in the 19th century.

2.1.3.3 Among the earliest recorded wreckings is that of the *Charming Nancy*, which was travelling from Dublin to Barbados in 1766, and wrecked on Arklow Bank sand bank (W02668). One life was lost, while the remaining crew were saved by fishermen. The recording of two wrecking events in 1772, within days of each other and both on the same journey, from Baltimore to Dublin, may be duplication of the same event rather than individual instances. This is further suggested by the fact that while one wrecking is named, the *Princess* or *Prince of Wales*, the other is unnamed (W02723 and W02754 respectively).

2.1.3.4 There were occasions when more than one wreck is assigned the same day, but these are few; for example, on 11 November 1819 two brigs were lost, one of which was the *Albion*, travelling from Swansea to Dublin and the other was thought to be an American vessel (W02651 and W02757 respectively). On 5 September 1904, the *Viola*, a 182-ton wooden barquentine, travelling from Glasgow to Cherbourg, with a cargo of coal was lost on the bank 2 miles off the North Arklow Lightship. An unnamed schooner or brigantine was also lost at the same location that day (W02748 and W02772 respectively). The First World War (WW1) left its mark on the sand bank. On 19 August 1915, the German submarine U-27 was lost there, and on 21 September 1917 an unnamed submarine may have foundered on the bank (W02746 and W02773 respectively). On 28 March 1917, the South Arklow Lightship, *Guillemot*, a steel-framed vessel measuring 96 feet long, 22.66 feet wide, and 11.75 feet deep was boarded by the crew of the German submarine UC-65 and sunk. The remains of the *Guillemot* lie in 50 m of water at a known location off the bank (W02737). The presence of U-boats during WW1 was in part a feature of the former chemical factory, Kynoch's, in Arklow being used as a munitions factory during the war, supplying the allies on the Western Front with shells and bullets. The U-boats, patrolling under the shelter of the Arklow Bank, were well placed to engage with munition-laden cargo ships exiting the Avoca estuary.

2.1.3.5 The war aside, the vessels that wrecked on Arklow Bank were generally lost during the winter and early spring, with the majority between November and March/April. This is in keeping with expectations for such events to occur during the seasonally foul weather. In nine cases, wind direction was recorded. It appears that storm conditions during prevailing southwesterly winds accounted for six wreckings (W02754, W02690, W2770, W02373, W0268 and W02665); northeasterlies for two wreckings (W02661 and W02770); while an east-southeasterly summertime storm resulted in the wrecking of one vessel (W02725). The Irish Sea is particularly treacherous during a northeasterly/easterly and the low numbers of wreckings recorded in such conditions suggests that most captains knew when to seek shelter and had sufficient advance warning to do so. The wreckings that occurred during southwesterlies suggests that despite efforts to hug the coastline inshore, there were many occasions when vessels trying to navigate harsh conditions were blown onto the bank.

2.1.3.6 The majority of the vessels wrecked appear to have crossed the Irish Sea regularly between Britain and Ireland. The route from Welsh ports (Pembry, Cardiff, Swansea) to Dublin would bring coal (for example, the *Sophia*, which was lost on 5 November 1855). Other vessels would have been travelling up and down the Irish Sea connecting, for instance, Glasgow and Cherbourg (the *Viola* wrecked on 5 September 1904, W02748), or participating in transatlantic journeys. The cargo being carried was also wide-ranging but, from an archaeological perspective, the loss of the 234-ton Sunderland brig *Jemine* or *Gemini* in 1799 is of interest because her manifest included three 3-pounder carriage-mounted guns, and these items could present themselves on the seabed during marine geophysical and associated surveys. She was travelling from Opporto to Dublin (W02697). In addition, the *Thomas*, was a 318-ton ship from Sunderland carrying six 4-pounder cannons (W02744). Equally, vessels carrying more mundane cargo, such as iron sheets (the *Selina* W02734), iron (the *Louisa* or *Louise* W02707), pig-iron (the *Calcutta* WW02664, *Sarah* W02732, *Dove* W02675) and ore (the *Parton* W02719 and *Queen* W02724) are of interest in this regard.

2.1.3.7 The large numbers of recorded wreckings provide a sense of the archaeological potential of the Arklow Bank but it is not possible to deduce from these records where the wreck sites are located. The record would be made by those watchers and reporters of the events taking place from the shore or from one of the lightships who saw and recorded a ship in distress, or have been part of rescue parties dispatched to save crews and passengers and recover cargo. Their records will typically position the ship in relation to the nearest topographic reference point. In the case of Arklow Bank, this might be as general as being off the north or south ends of the bank. They do not record where on the sand bank a vessel may have finally foundered, as there are no obvious topographic markers to relate to other than either end of the 25 km-long sand bank. For further insight, it is necessary to consider other sources, including fishermen's records of 'snag points', divers' records of discoveries underwater and marine geophysical survey records.

2.1.3.8 The wooden frames and steel frames of the wrecked vessels will not survive above the seabed for any length of time, especially of small craft, as exposed elements are eroded quickly in the seawater. Only the portions of vessels that are buried by covering sands and silts tend to survive intact over time. The deployment of side scan sonar and multbeam bathymetry can identify wreckage and debris that lies proud of the seabed but it requires a magnetometer to detect the presence of iron, and both the magnetometer and sub bottom profilers can record material that lies buried.

2.1.3.9 Marine geophysical survey records include official surveys by the UK Hydrographic Survey Office (UKHO), which tend to record only substantial wreckage that causes navigation hazards, and more discrete surveys commissioned for marine development projects or undertaken for research purposes. The surveys commissioned for ABWP Phase I contributed new insight, as have the surveys commissioned since 2019 for ABWP Phase II, where the surveys have added to the details of known locations as well as identifying previously unrecorded sites (**Figure 1**). The surveys also generate information on the changing nature of the seabed in what is a dynamic seascape with shifting surface sediments.

2.1.3.10 Of the 78 known or charted shipwreck locations on the sand bank and in the sea area to the west (see listing in **Appendix B**), 48 sites were recorded prior to a comprehensive survey for ABWP Phase II completed in 2019. The 2019 survey and the archaeological interpretation of its data sets added a further 24 sites, while 6 more new sites were first recorded in a further survey in 2022. The various surveys cover the same expanses of seabed, and the fact that new sites are discovered and known sites may not be visible in later surveys reflects the dynamic nature of the surface sediments on the bank, where the shifting sands routinely bury and conceal sites, while also exposing previously unrecorded wrecks. **Figure 1** to **Figure 5** show the distribution of known shipwreck sites associated with Arklow Bank, focussing in on the Marine Archaeology Study Area. The different symbols used to show wreck sites reflects the different surveys recording the sites.

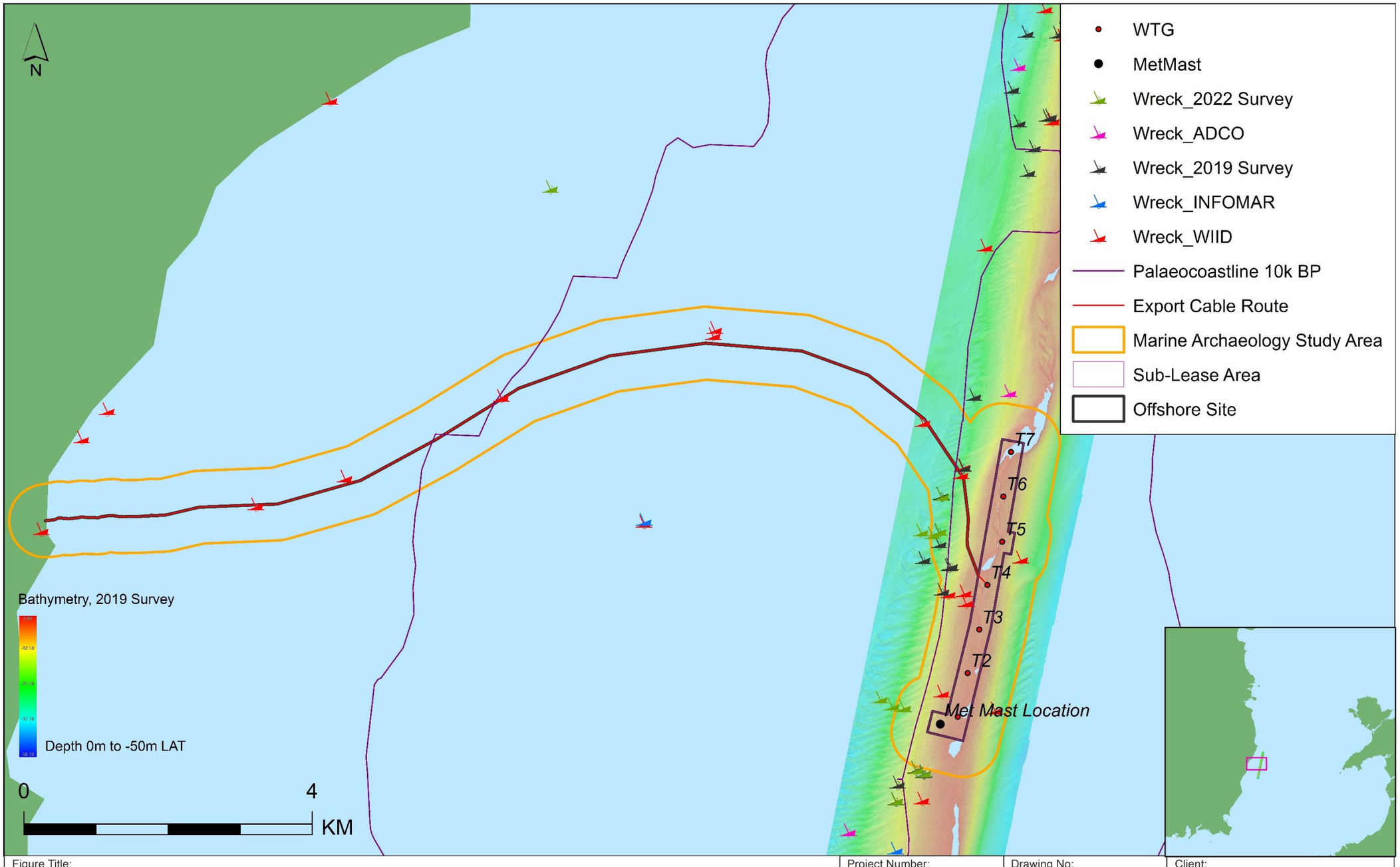


Figure Title: **Arklow Bank sand bank and Marine Archaeology Study Area**	Project Number: **ADCO26/006rv**	Drawing No: **2**	Client: **Venterra Group for Arklow Energy**
Project Name: **Arklow Bank Wind Park 1 Decommissioning**	Date: **28/07/2026**	Rev: **00**	
	Scale: **1:50,000 @ A3**	Drawn: **NB** / Checked: **NB**	

Figure 2: Arklow Bank and Marine Archaeology Study Area

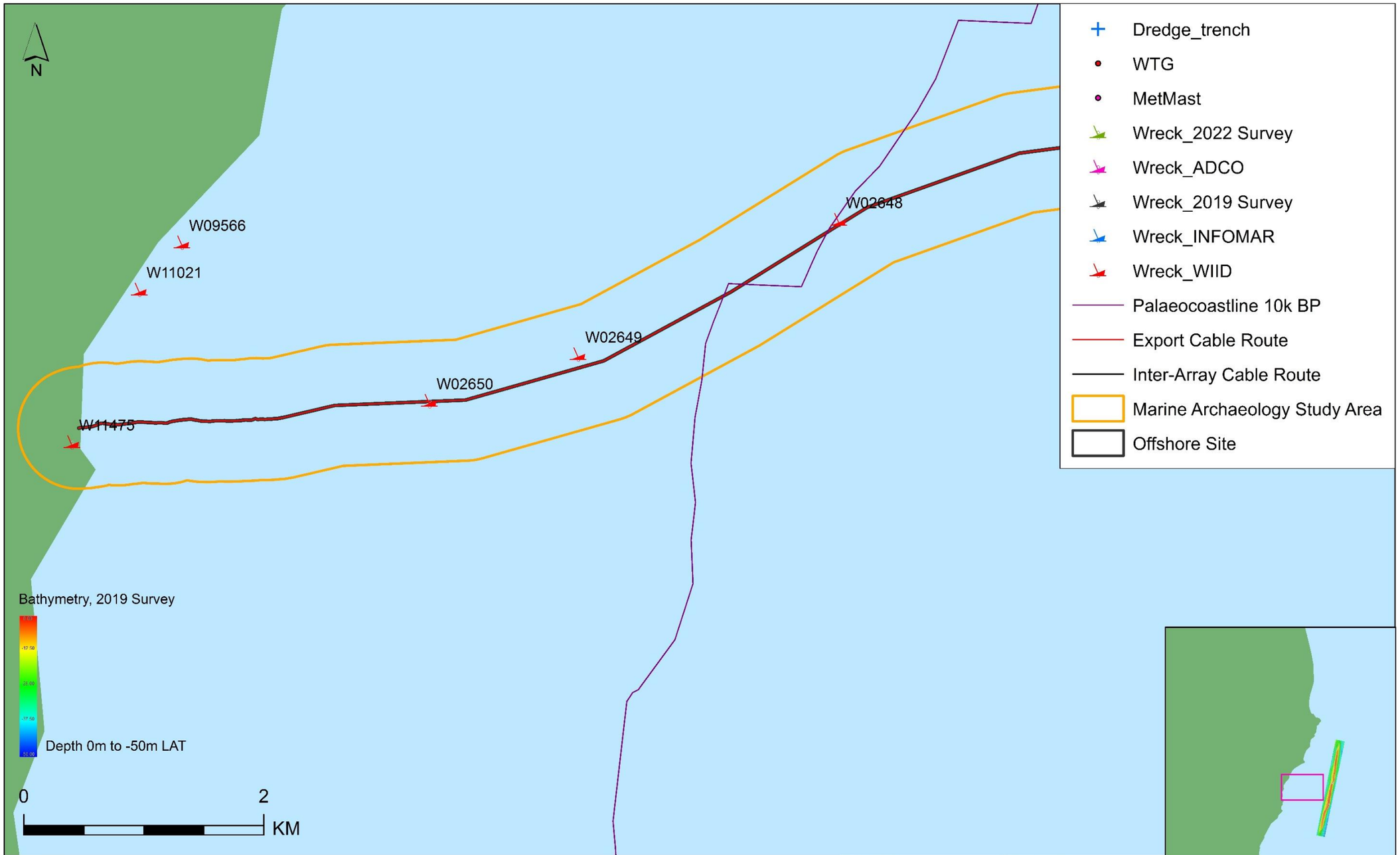


Figure Title: **Arklow Bank sand bank and Marine Archaeology Study Area, nearshore**	Project Number: **ADCO26/006rv**	Drawing No: **3**		Client: **Venterra Group for Arklow Energy**
Project Name: **Arklow Bank Wind Park 1 Decommissioning**	Date: **11/06/2026**	Rev: **00**		ADCO
	Scale: **1:30,000 @ A3**	Drawn: **NB**	Checked: **NB**	

Figure 3: Arklow Bank and Marine Archaeology Study Area, nearshore

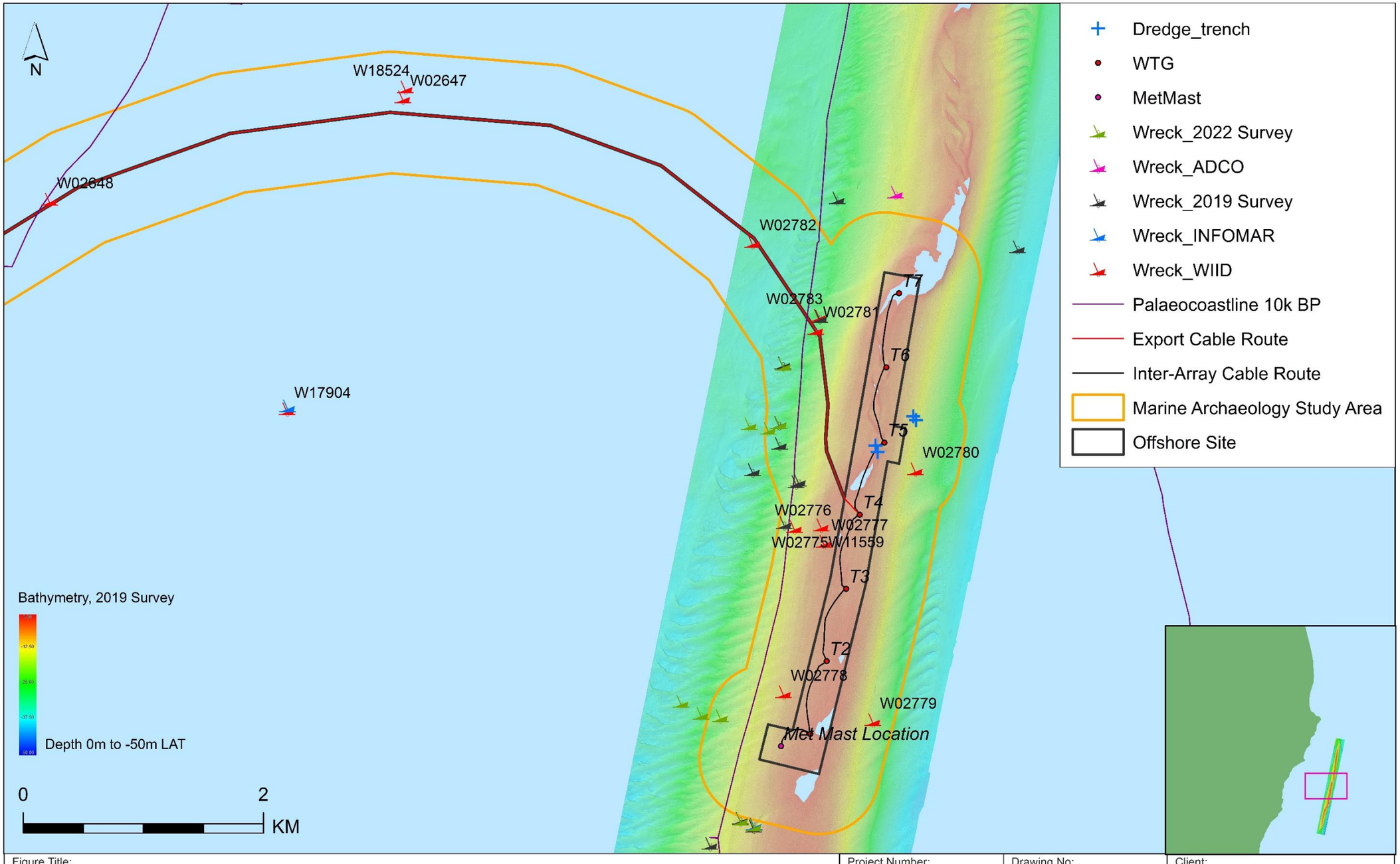


Figure Title: **Arklow Bank sand bank and Marine Archaeology Study Area, offshore**	Project Number: **ADCO26/006rv**	Drawing No: **4**	Client: **Venterra Group for Arklow Energy**
	Date: **10/06/2026**	Rev: **00**	
Project Name: **Arklow Bank Wind Park 1 Decommissioning**	Scale: **1:30,000 @ A3**	Drawn: **NB**	Checked: **NB**

Figure 4: Arklow Bank and Marine Archaeology Study Area, offshore

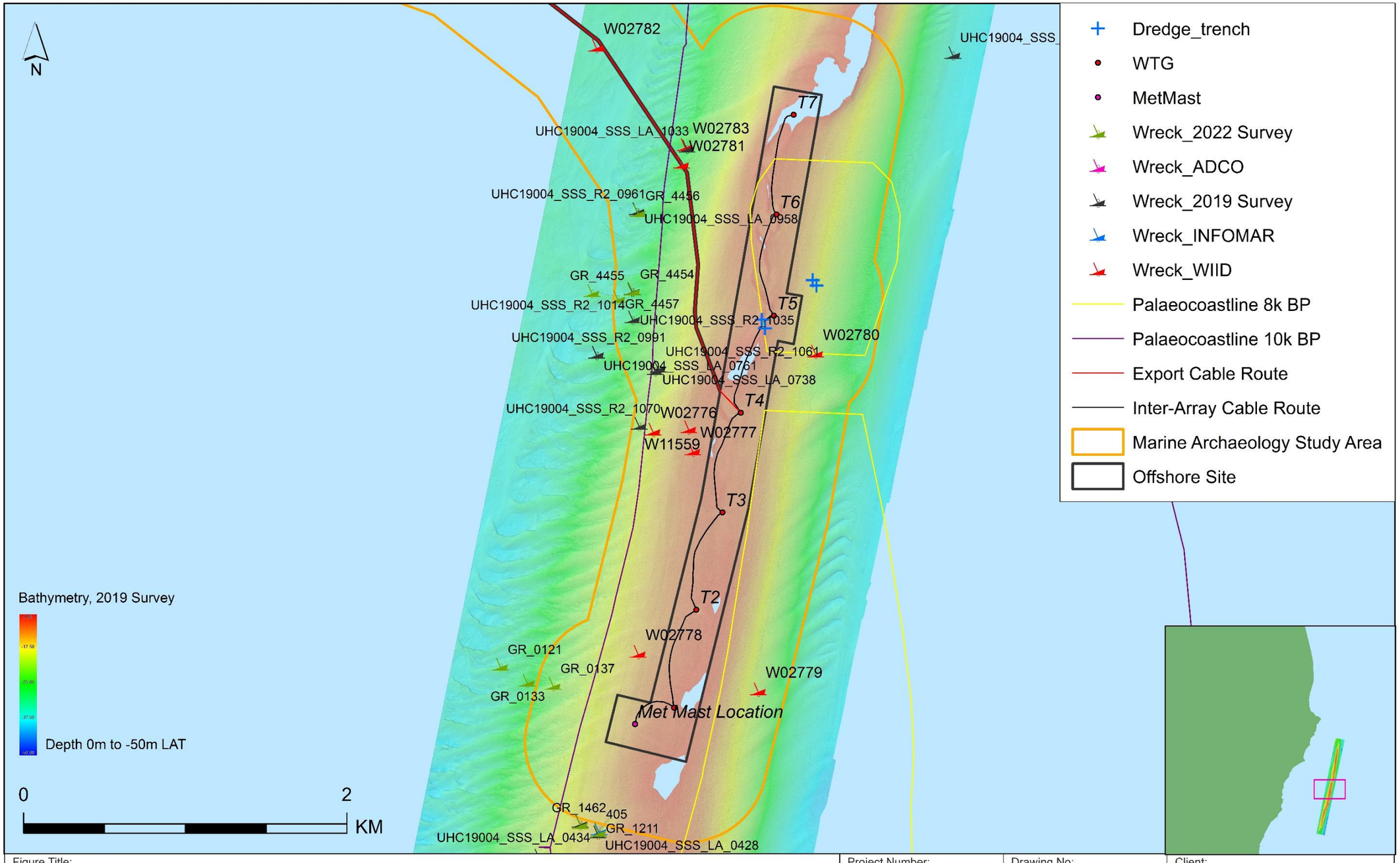


Figure Title: **Arklow Bank sand bank and Marine Archaeology Study Area, detail on bank**	Project Number: **ADCO26/006rv**	Drawing No: **5**	Client: **Venterra Group for Arklow Energy**
	Date: **10/06/2026**	Rev: **00**	
Project Name: **Arklow Bank Wind Park 1 Decommissioning**	Scale: **1:22,282 @ A3**	Drawn: **NB**	Checked: **NB**

Figure 5: Arklow Bank and Marine Archaeology Study Area, detail on bank

2.1.4 Marine Archaeology and Proposed Works Offshore

2.1.4.1 **Table 2.1** lists the known archaeological sites within the marine archaeological study area, and is presented in terms of sites that lie within the Offshore Site boundary and sites that lie within the wider marine archaeology study area that extends 500 m from the Offshore Site boundary. The table is arranged geographically from west to east, extending from the shoreline in Arklow to the Arklow Bank. The distribution of the sites is presented in Figure 2 to Figure 5**.**

Table 2.1: Known archaeological sites within and adjacent to the Marine Archaeology Study Area

Reference	Type	Detail	UTM30N Northing	UTM30N Easting	Name	Within Project Boundary	Distance to Offshore Export Cable	Impact Risk
W11475	Wreck	UKHO record	288198	5853863	Unknown	×	130 m S of offshore export cable	None
W02650	Wreck	SSS contact	291160	5854218	Unknown	✓	Within, offshore export cable traverses the site	✓
W02649	Wreck	SSS contact 8m long	290401	5854597	Unknown	×	100 m N of offshore export cable	None
W02648	Wreck	SSS contact 11m long	294672	5855713	Unknown	×	30 m N of offshore export cable	✓
W02647	Wreck	SSS contact 16m long	297511	5856580	Unknown	×	130 m N of offshore export cable	None
W18524	Wreck, possible	SSS contact	297539	5856662	Unknown	×	215 m N of offshore export cable	None
W02782	Wreck	Identified during cable lay	300418	5855376	Unknown	×	26 m SW of offshore export cable	✓
W02783	Wreck	SSS contact 16m long	300974	5854757	Unknown	×	82 m E of offshore export cable	None
W02781	Wreck	Identified during cable lay	300952	5854652	Unknown	✓	Within, offshore export cable traverses the site	✓
LA_0958	Wreck	SSS contacts 13m long	300677	5854362	Unknown	×	335 m W of offshore export cable	None
GR_SSS_4456	Wreck	SSS contact	300650	5854350	Unknown	×	361 m W of offshore export cable	None
LA_0855	Wreck	SSS contacts 22m long	300647	5853867	Unknown	×	395 m W of offshore export cable	None
GR_SSS_4457	Wreck	SSS contacts 20m long	300557	5853819	Unknown	×	490 m W of offshore export cable	None
R2_1035	Wreck	SSS contacts, debris & scour	300650.4	5853694.1	Unknown	×	390 m W of offshore export cable	None
R2_1061	Wreck	SSS contact, 5.4m long	300809	5853387	Unknown	×	310 m W of offshore export cable	None
LA_0738	Wreck	SSS contacts, debris & scour	300789.0	5853374.6	Unknown	×	330 m W of offshore export cable	None

Reference	Type	Detail	UTM30N Northing	UTM30N Easting	Name	Within Project Boundary	Distance to Offshore Export Cable	Impact Risk
03E1011:3	Flint scraper	Flint scraper	Not recorded	Not recorded	None	✓	Within Sub Lease Area from a 200m-long dredged channel in which WTG 5 lies, extending SW and NE of WTG 5	✓
03E1011:4	Flint core	Flint core	Not recorded	Not recorded	None	✓	Within Sub Lease Area from a 200m-long dredged channel in which WTG 5 lies, extending SW and NE of WTG 5	✓
W02780	Wreck	SSS contact 16m long	301782	5853481	Unknown	×	340 m SE of WTG 5	None
W02775, W11559	Wreck	SSS contact 44m long	300997	5853014	Unknown	×	300 m SW of offshore export cable and 330 m SW of WTG 4	None
W02776	Wreck	SSS contact mound & debris	300775	5852999	Unknown	×	480 m SW of offshore export cable and 550 m SW of WTG 4	None
R2_1070	Wreck	SSS contact 17m long	300689.7	5853034.1	Unknown	×	550 m SW of offshore export cable and 630 m WSW of WTG 4	None
W02777	Wreck	SSS contact mound & debris	301024	5852907	Unknown	×	380 m SW of offshore export cable and 375 m SW of WTG 4	None
W02778	Wreck	SSS contact mound & debris	300683	5851621	Unknown	×	400 m NW of WTG 1, 445 m SW of WTG 2	None
W02779	Wreck	SSS contact 5m long	301427	5851389	Unknown	×	540 m ENE of WTG 1	None
GR_SSS_0137	Wreck	SSS contact 20m long	300157.6	5851424	Unknown	×	560 m WNW of Met Mast and 755 m W of WTG 1	None
LA_0428	Wreck	SSS contact 68m long	300434	5850503	Unknown	×	680 m S of Met Mast but scour pocket reaches within 450 m of Mast	None

2.1.4.2 There are 27 sites within the marine archaeology study area, 25 or which are associated with shipwreck, and two of which are the prehistoric flints recovered while dredging in the vicinity of WTG T5.

2.1.4.3 There are six sites located within or immediately beside the Offshore Site boundary, and these are the sites that may be considered to be at risk from potential spatial overlap with proposed activities arising from the Proposed Works Offshore (**Table 2.1**, orange highlight). The risk is because the sites either lie directly within the footprint of the infrastructure to be decommissioned or because they are in close proximity to the infrastructure whose removal is likely to affect the site area. The details of the six sites are presented in **Appendix C**.

2.1.4.4 The risk associated with these sites results from the removal of cabling from the seabed at each location, where the removal exercise may impose an indirect spatial overlap with proposed activities on those locations situated adjacent to the offshore export cable (namely sites W02648, W02782) or will impose a direct spatial overlap with proposed activities on those locations where the cable traverses directly over the wreck site (W02650 and W02781). The find locations of the prehistoric flint tools 03E1011: and 03E1011:4 will occur within an area where the inter-array cables are to be removed from the seabed, when dredging occurs in the vicinity of WTG T5, and when WTG T5 is removed from the Offshore Site.

3 CONCLUSIONS

3.1.1.1 The Arklow Bank sand bank and its sea area to the west are areas of high archaeolgical potential both in terms of evidence for prehistoric activity observed on the Bank, and in terms of historic shipwreck, 78 sites of which have been located.

3.1.1.2 The marine archaeology study area echoes the overall pattern of archaeological potential across the sand bank, with 25 known shipwreck locations within the marine archaeology study area, and the addition of the only known prehistoric artefacts associated with the bank (the two pieces of flint).

3.1.1.3 The Offshore Site boundary, in turn, reflects the same narrative, including four known shipwreck locations and the two recovered flints. Of the shipwreck sites, two (W02650, W02648) were recorded during pre-construction geophysical survey for the export cable route, and two (W002782, W02781) were discovered during the cable laying operation for ABWP Phase I. It appears that site W02648 lies 30 m north of the offshore export cable that is to be decommissioned, and site W02782 now lies some 26 m southwest of the offshore export cable. In both instances, it is unlikely that removal of the offshore export cable will result in direct spatial overlap with proposed activities and the charted location of the wreck, although indirect overlap may occur.

3.1.1.4 Sites W02650 and W02781, in contrast, are traversed by the offshore export cable whose removal may result in direct impacts.

3.1.1.5 Dredging activity in the vicinity of WTG T5 may take place in proximity to where the prehistoric flints were recovered.

3.1.1.6 The impacts are further assessed in the **Volume 2, Chapter 8** of the EIAR, which also presents a clear mitigation strategy.

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APPENDIX A RECORDED SHIPWRECK EVENTS ON ARKLOW BANK AND ADJACENT WATERS

Source: Brady, Shipwreck Inventory of Ireland

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02651	11/11/1819	*Albion*	Arklow Bank	Cardigan Brig
W02652	13/04/1870	*Alphonse & Corinne*	Arklow Bank	Of Nante, coal cargo
W02653	04/06/1858	*Amazon*	Arklow Bank	237 ton brig. General cargo
W02654	03/04/1847	*Amicitia*	Arklow Bank	71 ton sailing vessel
W02655	03/10/1872	*Ann & Mary*	Arklow Bank	Of Cardigan, barley cargo
W02656	30/01/1860	*Ann Mitchell*	Arklow Bank	items recovered by diver
W02657	15/06/1776	*Anna Maria*	Mizen Bank	Of Straslund, struck bank, wrecked
W02659	26/02/1858	*Avondale*	Arklow Bank, N end	Of Baltimore
W02660	12/12/1794	*Beautiful Mary*	Arklow Banks	*en route* Dungavan to Bristol
W02661	28/05/1860	*Breeze*	Arklow Light, near	95 tone brigantine, NE Force 12
W02662	14/08/1840	*British Tar*	Arklow Bank, off	264-ton Whitby brig. Stranded, floated off, went to pieces
W02663	27/05/1748	*Bucephalus*	Arklow Sands	*en route* Limington to Dublin
W02664	11/05/1860	*Calcutta*	Arklow Bank	527 ton iron screw steamer, pig-iron & general cargo
W02665	06/01/1873	*Charles*	Arklow Bank	81-ton Wexford wooden schooner *en route* from Dundalk to Wexford, SSW 9 force Gale
W02666	04/05/1778	*Charlotte*	Arklow Bank	*en route* London to Dublin
W02667	1778	*Charlotte*	Arklow Bank	lost, 1778
W02668	22/11/1766	*Charming Nancy*	Arklow Bank	*en route* Dublin to Barbados
W02669	03/12/1863	*Comet*	Arklow Bank	74-tone Arklow schooner, NW force 12, coal cargo
W02670	01/11/1818	*Conquestador*	Arklow Bank	*en route* St Ubes to Dublin

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02671	19/10/1865	*Constantina*	Arklow Bank	463-ton Liverpool barque, vessel abandoned
W02672	16/01/1862	*Crisis*	Arklow Bank	426-ton Liverpool barque, wrecked
W02674	19/01/1804	*Demerara*	Arklow Bank	409-ton Lancaster/Liverpool vessel *en route* from Demerara to Glasgow
W02675	01/09/1870	*Dove*	Arklow Bank	143-tone wooden schooner of Barrow *en route* from Morcombe to Newport with pig iron, SSW gale.
W02676	09/12/1833	*Earl of Kilmorey*	Arklow Bank, near	106-ton Liverpool brig *en route* from Dundalk to Bristol
W02677	11/12/1851	*Ebenezer*	Arklow Bank	59-ton Salcombe schooner *en route* from Lisbon to Dublin
W02678	14/02/1812	*Eliza*	Arklow Bank	*en route* from Liverpool to Waterford
W02679	30/04/1846	*Erin*	Arklow Bank	*en route* from Liverpool to Barbados
W02680	21/01/1834	*Eton/Etton*	Arklow Banks	*en route* from Cadiz to Dublin
W02681	28/03/1897	*Express*	Arklow Bank	78-ton Wexford wooden schooner, *en route* Dublin to Wexford, SW force 5.
W02682	09/05/1903	*Fair Fanny*	Arklow Bank	59-ton Bideford ketch, *en route* from Burry Port to Dublin, coal
W02683	10/01/1816	*Fame*	Arklow Banks	*en route* from New York to Newry
W02684	16/02/1817	*Fame*	Arklow Banks	248-ton wooden snow *en route* from Berbice to Clyde
W02685	01/02/1935	*Fleck*	Arklow Bank, N end, near Buoy 2	99-ton steel steam Milford ketch
W02686	08/08/1869	*Gazelle*	Arklow Bank	Whitehaven schooner *en route* Newport to Dublin with coal.
W02687	29/12/1807	*Generous Friends*	Arklow Bank	*en route* Liverpool to Waterford
W02688	06/06/1915	*Gertrude*	Arklow Lightship, off	353-ton steel Liverpool steamship, 43.28 m long, 7.64 m wide, 32 m deep, *en route* from Ellesmere Port to Waterford, coal.
W02689	02/09/1858	*Harriet Francis*	Arklow Bank	450-ton USA ship *en route* Liverpool to Baltimore
W02690	15/09/1869	*Hellenis*	Arklow Bank	603-ton Dublin steamship, clipper screw steamer. Built 1861 by Richardson, Duck & Co Ltd, Stockton on Tees. Owned by Anglo-Ionian Steam Navigation Company. Believed to have run aground and wrecked. WSW/WNW winds.
W02692	28/02/1894	*Hondeklip*	Arklow Bank	240-ton Swansea brigantine, 106 feet long, 24.6 wide, 14.5 deep.
W02693	18/01/1856	*Horizon*	Arklow Bank?	*en route* Liverpool to New Orleans

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02694	09/01/1849	*Integrity*	Arklow Bank	66-ton Portmadog vessel *en route* Hartlepool to Dublin
W02695	28/07/1864	*Jane*	Arklow Bank	*en route* Liverpool to Waterford, sank off the bank
W02696	12/07/1939	*Java*	Arklow Bank, inside	French crabber, grounded
W02697	29/01/1799	*Jemine/Gemini*	Arklow Bank	234-ton Sunderland brig, carrying three 3-pounder carriage-mounted guns, Opporto to Dublin
W02698	01/10/1837	*Jessie*	Arklow Bank	*en route* from Wick to Cork
W02699	17/12/1855	*John*	Arklow Bank	Troon brigantine *en route* from Llanelli to Drogheda
W02700	19/02/1931	*Julia*	Arklow Bank	184-ton three-masted wooden schooner, 106.5 feet long, 25.5 wide, 12.4 deep, *en route* from Glasgow to Newhaven, cargo of iron
W02701	1862	*Kate*	Arklow Bank	wrecked, 1862
W02702	18/01/1840	*Kilvington*	Arklow Bank	Schooner *en route* Liverpool to Wexford
W02703	01/09/1882	*Lake Nepigon*	North Arklow Bank	Steamer *en route* Liverpool to Queenstown to Montreal
W02704	23/03/1849	*Laurel*	Arklow Bank	Wrecked, cargo of coal
W02705	30/07/1864	*Lauriston*	Arklow Bank	131-ton brigantine *en route* Cardiff to Dublin, cargo of coal
W02706	24/03/1822	*Linen/Linen Hall*	Arklow Bank	80-ton Bristol schooner *en route* Dublin to London. Cargo included 23,000 guineas
W02707	01/03/1859	*Louisa/Louise*	Arklow Bank	*en route* from Liverpool to Mediterranean, cargo of iron and coal
W02708	03/10/1817	*Maria*	Arklow Bank	*en route* Chester to Pictou
W02709	16/04/1875	*Maria & Elizabeth*	Arklow Bank, near South Lightship, off Tara Hill	65-ton Newry wooden schooner, sank in 16 fathoms
W02710	05/02/1851	*Maria Terpithea*	Arklow Bank	358-ton Greek brig, *en route* Liverpool to Alexandria
W02711	31/07/1826	*Martha*	Arklow Bank	*en route* Whitehaven to Cardiff
W02712	03/02/1875	*Minnie*	Arklow Bank	49-tone Dublin wooden schooner, NE wind
W02713	12/08/1834	*Nandi/Naudi*	Arklow Bank	315-ton *en route* Liverpool to Rio de Janeiro
W02714	09/05/1858	*Nandi*	Arklow Bank	wrecked
W02715	14/12/1825	*Neptune*	Arklow Bank	*en route* from St Ubes

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02716	26/05/1811	*New Union*	Arklow Bank	80-ton wooden sloop *en route* Cardiff to Dublin
W02717	15/06/1809	*Olive Branch*	Arklow Bank	*en route* Quebec to Dublin
W02718	01/06/1834	*Opheffing/Oppeffnung*	Arklow Bank	*en route* Liverpool to Rotterdam
W02719	02/02/1861	*Parton*	Arklow? (Carlow) Bank	*en route* Whitehaven to Swansea, cargo of ore
W02720	29/03/1880	*Pater*	Arklow Bank and Wicklow Roads	587-ton wooden barque, *en route* Liverpool to New York, SW wind
W02722	10/04/1833	*President*	Arklow Bank	*en route* Alicante to Londonderry
W02723	25/09/1772	*Princess/Prince of Wales*	Arklow Bank	*en route* Baltimore to Dublin
W02724	02/02/1873	*Queen*	Arklow Lightship, off	102-ton wooden brig *en route* Liverpool to Newport, 188 tonnes of burnt copper ore
W02725	06/06/1856	*Racer*	Arklow Bank	1,669-tonne vessel, ESE wind
W02726	27/04/1897	*Reaper*	Arklow Bank, N of Jack's Hole	40-ton wooden ketch *en route* Port Dinorwic to Cork, cargo of slates
W02727	16/05/1891	*Ribble*	Arklow Lightshp, .25 mile off	100-ton iron steamship *en route* Swansea to Newry
W02729	28/12/1921	*Sannox*	Arklow Bank 4 Miles S of North Arklow Lightship	154-tone wooden brigantine 90.6 feet long, 22.5 wide, 12.4 deep
W02730	15/02/1818	*Sarah*	Arklow Bank	*en route* Liverpool to Boston
W02731	03/01/1843	*Sarah*	Arklow Bank	72-ton schooner
W02732	15/11/1862	*Sarah*	Arklow Bank	cargo of pig iron
W02733	31/12/1885	*Scotia Queen*	Arklow Bank	423-tone barque, 130 feet long
W02734	24/09/1822	*Selina*	Arklow Bank	*en route* Newport to Liverpool, cargo of iron sheets
W02735	02/04/1776	*Shaw*	Arklow Bank	*en route* Rotterdam to Newry
W02736	05/11/1855	*Sophia*	Arklow Bank	Brigantine, *en route* Cardiff to Dublin, cargo of coal
W02738	08/04/1875	*Statesman*	Arklow Bank, N end	Belfast barque

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02739	17/12/1822	*Success*	Arklow Bank, Kilmichael	Stranded
W02740	09/10/1853	*Syren*	Arklow Bank	80/104-ton Dublin brigantine, *en route* from Pembry to Dublin, cargo of coal
W02741	18/12/1853	*Temened*	Arklow Bank, opposite Arklow Head	Liverpool barque
W02742	25/12/1865	*Tenasserin*	Arklow Bank	1,002-ton ship, 195 feet long, 35 wide, 23 deep, *en route* Liverpool to Calcutta
W02743	14/12/1798	*Thetis*	Arklow Bank	87-ton Saltcoats sloop, *en route* London to Dublin
W02744	18/11/1806	*Thomas*	Arklow Bank	318-ton Sunderland ship with six 4-pounder cannon
W02745	24/10/1873	*Times*	Arklow Bank	Newport/Bristol smack, *en route* Wicklow to Rotterdam
W02746	19/08/1915	*U-27*	Arklow Bank	German U-boat
W02747	17/05/1773	*Unity*	Arklow Bank, off	*en route* Rotterdam to Dublin
W02748	05/09/1904	*Viola*	Arklow Bank, 2 miles off North Arklow Lightship	182-ton wooden barquentine, *en route* Glasgow to Cherbourg, cargo of coal
W02749	24/02/1784	*Wasp*	Arklow Bank, off	Dublin sloop, *en route* Wexford to Dublin
W02750	24/12/1838	*Watson*	Arklow Bank	*en route* Whitehaven to Cardiff
W02751	17/10/1838	*Wave*	Arklow Bank, off	*en route* London to Liverpool
W02752	29/10/1832	*William Appleton*	Arklow Bank	*en route* Liverpool to Jamaica
W02753	24/11/1833	*Young Messenger*	Arklow Bank	*en route* to Dublin
W02754	01/10/1772	Unknown	Arklow Bank	*en route* Baltimore to Dublin, SSW gale
W02755	07/02/1776	Unknown	Arklow Bank	*en route* Bordeaux to Belfast
W02756	26/11/1786	Unknown	Arklow Bank, off	Vessel sank, crew drowned
W02757	11/11/1819	Unknown	Arklow Bank	Brig
W02758	16/06/1826	Unknown	Arklow Bank, off	80-ton schooner
W02759	17/12/1833	Unknown	Arklow Bank, near	Brig *en route* Derry to Bristol
W02761	17/11/1852	Unknown	Arklow Bank	Schooner

Reference	Date of Loss	Vessel Name	Place of Loss	Description
W02762	08/02/1853	Unknown	Arklow Bank	Brig *en route* Liverpool to Constantinople
W02763	01/12/1857	Unknown	Arklow Bank?	Copper fastened and hulled wreckage ashore in Wexford
W02764	17/02/1860	Unknown	Arklow Bank, outside	100-120-ton schooner, in 4 fathoms
W02765	02/02/1861	Unknown	Arklow Bank	Brig
W02766	12/02/1861	Unknown	Arklow Bank	Steamer
W02768	04/08/1871	Unknown	Arklow Bank	Brigantine
W02769	04/10/1872	Unknown	Arklow Bank, N end	Smack
W02770	25/04/1878	Unknown	North Arklow Bank	Large vessel
W02771	14/11/1895	Unknown	Arklow Bank, S end	Full-rigged ship
W02772	05/09/1904	Unknown	Arklow Bank, 2 miles S of North Arklow Lightship	Schooner/brigantine
W02773	21/09/1917	Unknown	Arklow Bank	Submarine may have foundered

APPENDIX B KNOWN SHIPWRECK EVENTS ON ARKLOW BANK AND ADJACENT WATER TO THE WEST

Source:

Brady, (2008), *Shipwreck inventory of Ireland*; Wreck Viewer (WIID), https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=89e50518e5f4437abfa6284ff39fd640

Brady, (2026), Arklow Bank Wind Park 2 EIAR Chapter 18 Appendix Marine Archaeology Technical Report

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
W02647	unknown	297514	5856582	52.82167	-6.00492	Unknown	Arklow Bay	Possible wreck, 16 m long, 4.9 m wide, 0.8 m high, in 15-16 m of water.
W02648	unknown	294672	5855713	52.812213	-6.04821	Unknown	Arklow Bay	Possible wreck, 11 m long 0.4 m wide, 0.4 m high, in 15-16 m of water
W02649	unknown	292399	5854609	52.80126	-6.07969	Unknown	Arklow Bay	Possible wreck, SSS target rectangular in shape, 8 m long by 4.7 m wide, it lies in 12-14 m of water
W02650	unknown	291160	5854208	52.79720	-6.09778	Unknown	Arklow Bay	Possible wreck, the 2003 survey recorded a series of SSS targets spread over a 200 m² area. The 2019 survey recorded boulders here but nothing distinctly indicative of a shipwreck. The water depth at the site is in the order of 12-16 m.
W02658	25/01/1865	301286	5857808	52 50 00N	05 57 00W	Armenian	Arklow Bank	UKHO919591484. 763 ton Royal Mail steam barque of London, 239 ft long, 29 ft wide 20 ft deep. En route from Liverpool to Madeira to Tenerife to West Coast of Africa. Struck bank, caught fire, sank. Arklow Lightship involved in the rescue but capsized, 4 deaths
W02690	15/09/1869	300450	5850432	52 46 00.50N	05 57 28.40W	SS *Hellenis*	Arklow Bank	While the WIID does not present a location for W02690, INFOMAR claims their site GSI 403 is the wreck of the *Hellenis* (W02690). Correlates with 2019 survey LA_0390, and 2022 survey GR 0138

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
W02737	28/03/1917	300236	5839999	52 40 23N	05 57 17W	South Arklow Light Vessel, *Guillemot*	Arklow, 10 miles SE by S	UKHO 010501289, steel frame, 96 feet long, 22.66 wide, 11.75 deep. Boarded by U-boat UC65 and sunk. Lies in 50 m of water
W02774	unknown	302484	5859615	52 51 00	05 56 00W	Unknown	Arklow Bank	UKHO 010501514, schooner
W02775	unknown	300997	5853014	52 47 24.654N	05 57 04.922W	Unknown	Arklow Bank	UKHO 010501514, schooner. 44 m long, 16.5 m wide, 1.5 m high, in 10-12 m of water. The stern is either missing or is buried in sand. Constructed of wood with copper-sheathed hull. Scour hole extends for 200 m to the NNE
W02776	unknown	300775	5852999	52 47 23.887N	05 57 16.701W	Unknown	Arklow Bank	Possible wreck, 2 m high mound in 18 m of water, with possible debris extending 22 m long, 8.5 m wide. Scour hole extends 59 m to NNE
W02777	unknown	301024	5852907	52 47 21.261N	05 57 3.266W	Unknown	Arklow Bank	Possible wreck, 0.5 m high mound in 10-12 m of water, with possible debris extending 7.3 m long, 5.4 m wide. Scour hole extends 25 m to NNE
W02778	unknown	300683	5851621	52 46 39.247N	05 57 18.581W	Unknown	Arklow Bank	Possible wreck, four mounds over an area 20.7 m by 4.6 m, in 11-1 m of water. The mounds vary in height from 0.18 m to 2 m. Scour hole extends for 20 m from the mounds
W02779	unknown	301427	5851389	52 46 32.730N	05 56 38.440W	Unknown	Arklow Bank	Possible wreck, in 4-6 m of water, 5.1 m long, 3.3 m wide
W02780	unknown	301782	5853481	52 47 40.816N	05 57 24.108W	Unknown	Arklow Bank	Possible wreck, comprising two sub-parallel linears extending 14.5 m from a common point, in 18-20 m of water
W02781	unknown	300952	5854652	52 48 17.549N	05 57 10.925W	Unknown	Arklow Bank	Wooden wreck, in 10 m of water. Average beam measures 200 m wide and deep. Some strakes at 1.3 m long.
W02782	unknown	300425	5855377	52 48 40.3N	05 57 40.6W	Unknown	Arklow Bank	Possible metal wreck in 32 m of water

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
W02783	unknown	300975	5854761	52 48 21.1N	05 57 9.90W	Unknown	Arklow Bank	Wreck in 15 m of water, 19.5 m long by 6 m wide, orientated NW-SE, recorded in 2004 (04R0056). Correlates with 2019 Survey LA_1033 m which recorded a wreck 13 m NW of the charted location
W02784	unknown	302782	5860428	52 51 26.64N	05 55 45.84W	Unknown	Arklow Bank	Possible wreck, SSS target 7.7 m by 7.5 m
W02785	unknown	303806	5864039	52 53 24.72N	05 54 59.04W	Unknown	Arklow Bank	Possible wreck, three SSS targets 21 m by 12 m
W02786	unknown	303861	5864572	52 53 42N	05 54 57.24W	Unknown	Arklow Bank	Possible wreck, four regularly spaced backscatter targets and a probably man-made object, 4.5 m by 4.5 m
W02787	unknown	302454	5860151	52 51 17.28N	05 56 2.76W	Unknown	Arklow Bank	Possible wreck, SSS target, linear anomaly among sand ripples, 20.7 m by 0.5 m
W02788	unknown	302221	5859559	52 50 57.84N	05 56 13.92W	Unknown	Arklow Bank	Possible wreck, backscatter linears, acoustic shadow, scour mark and magnetic signature. 23 m by 8.5 m. Correlates with 2019 Survey LA_1605, which recorded a wreck 70 m NW
W02789	unknown	303368	5863378	52 53 2.76N	05 55 21W	Unknown	Arklow Bank	Possible wreck, comprising high back scatter anomaly among sand ripples. 11.7 m by 4.6 m
W02790	unknown	302446	5860764	52 51 37.08N	05 56 4.56W	Unknown	Arklow Bank	Possible wreck, SSS target, 8 m by 5.8 m. Correlates with 2019 Survey LA_1735, 78 m to NW
W02791	unknown	302356	5860723	52 51 35.64N	05 569.24W	Unknown	Arklow Bank	Possible wreck, SSS target, acoustic shadows and seabed scouring. Correlates with 2019 Survey LA_1725 70 m to NW
W02792	unknown	303012	5865887	52 54 23.4N	05 55 45.48W	Unknown	Arklow Bank	Possible wreck, SSS target, 3.3 m by 2.7 m
W02793	unknown	303051	5865841	52 54 21.96N	05 55 43.32W	Unknown	Arklow Bank	Possible wreck, SSS target, 5.1 m by 2.8 m

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
W02794	unknown	303151	5865837	52 54 21.96N	05 55 37.92W	Unknown	Arklow Bank	Possible wreck, SSS target, 13.4 m by 2.4 m
W02795	unknown	303247	5865710	52 54 18N	05 55 32.52W	Unknown	Arklow Bank	Possible wreck, SSS target, 3.4 m by 1 m
W02796	unknown	303037	5865663	52 54 16.2N	05 55 43.68W	Unknown	Arklow Bank	Possible wreck, SSS target, 5.8 m by 2.6 m
W02797	unknown	302965	5863583	52 53 8.88N	05 55 42.96W	Unknown	Arklow Bank	Possible wreck, SSS target, debris over 14 m by 6 m area
W02798	unknown	302452	5861744	52 52 8.76N	05 56 6.36W	Unknown	Arklow Bank	Possible wreck, SSS target, 12.8 m by 4.9 m. Correlates with 2019 Survey LA_1773, 78 m NW
W02799	unknown	302116	5861112	52 51 47.88N	05 56 22.92W	Unknown	Arklow Bank	Possible wreck, SSS target, 13.5 m by 2.3 m
W02800	unknown	303111	5864357	52 53 34.08N	05 55 36.84W	Unknown	Arklow Bank	Possible wreck, SSS target, vessel shaped, 22.6 m by 3.8 m
W02801	unknown	304123	5864216	52 53 30.84N	05 54 42.48W	Unknown	Arklow Bank	Possible wreck, SSS target, 14.9 m by 6.2 m
W02802	unknown	302613	5859410	52 50 53.52N	05 55 52.68W	Unknown	Arklow Bank	Possible wreck, SSS target, 11.2 m by 4.2 m
W09512	10/09/1950	300408	5850140	52.95833	-5.95833	MV *Cameo*	Arklow Bank	UKHO. The WIID presents a location based on the UKHO coordinate. The location lies outside the area surveyed by SSS and magnetometer in 2019, and the multibeam data set did not show any irregularity on the seabed surface. However, INFOMAR claims their site GSI 405 is the wreck of the *Cameo* (W09512), located some 370 m N. Correlates with 2019 survey LA_0428
W09566	unknown	2899099	585553	52.80833	-6.12917	*Corona*	Unknown	UKHO
W10325	unknown	307756	5853129	52.79367	-5.85133	Unknown	Arklow Bank, approx. 5 km east of	Wreck surveyed by the *Celtic Voyager* in 2012 as part of the INFOMAR seabed mapping programme. Wreck measures 51 m

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
								long, 6.3 m in maximum width and lies in 58 m of water. GSI Wreck No. 316.
W10326	unknown	305990	5855386	52.8133	-5.87883	Unknown	Arklow Bank, approximately 3.5 km east	Wreck surveyed by the *Celtic Voyager* in 2012 as part of the INFOMAR seabed mapping programme. Wreck measures 68 m long, 9.6 m in maximum width and lies in 34 m of water. GSI Wreck No. 315.
W10331	unknown	303177	5864318	52.89247	-5.9259	Unknown	Arklow Bank	UKHO
W11021	unknown	288744	5855146	52.80467	-6.13417	Unknown	Arklow Port, 1.3 km north	UKHO
W11475	unknown	288198	5853863	52.79305	-6.14167	Unknown	Arklow Port	UKHO
W11721	Unknown	292189	5859792	52.84819	-6.08611	Unknown	Ennereilly Strand, Sallymount	Unknown
W17904	unknown	2965504	5853980	52.7972	-6.01783	Unknown	Arklow, Wicklow. 8.1 km east of	Wreck surveyed by the Celtic Voyager in 2011 as part of the INFOMAR seabed mapping programme. Wreck measures 26 m long, 10 m in maximum width and lies in 27 m of water. GSI Wreck No_297.
W18524	unknown	297533	5856643	52.82167	-6.00492	Unknown	Arklow Bay, Co Wicklow, just N of the Seven Fathoms Bank	Possible wreck, sss target in 15-16 m of water. 80 from W02647
W18526	22/01/1958	300926	5846368	52.735316	-5.949641	*Anna Toop*	Arklow Bank, west side. Approximately 13 km east of Kilmichael Point.	SS *Anna Toop* was a 478 ton British Cargo Steamer built in 1893 at Troon, Scotland. She struck South Arklow Bank whilst *en route* from Port Talbot for Derry carrying a cargo of steel plates. She managed to get off the sandbank on the 22/01 but filled with water and sank the next day. The vessel measures in at 49 m in length, 7 m in width and 3 m height. c/o Roy Stokes. Correlates with 2019 Survey LA_3638

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
GSI 467	unknown	300041	5849442	52.757778	-5.963333	Unknown	Arklow Bank	Recorded by INFOMAR during cruise GEO16_03 as a metal wreck measuring 67 m, 12 m wide, at a depth of 15 m. The wreck site is not yet absorbed into the WIID
LA_0421	Unknown	300071.0	5850359.6	52.765835	-5.963555	Unknown	Arklow Bank	Potential wreck or debris first recorded in 2019 as an SSS anomaly associated with magnetometer target MAG_0151. The 2022 survey recorded a contact as debris at this location (GR 01139)
LA_0434	Unknown	300323.5	5850568.9	52.767838	-5.959779	Unknown	Arklow Bank	Possible wreck first recorded in 2019 survey. Defined by area of debris that is largely buried but with two exposed elements at either end, the southmost corresponding with magnetometer target LA_0147. Aligned NW/SE. Two outlying debris targets recorded 35 m to the N. 100 m W of Wreck LA_0428. Recorded in 2022 (GR_SSS_1462), position taken 6 m south of that recorded in 2019
LA_0738	Unknown	300789.0	5853374.6	52.793342	-5.954673	Unknown	Arklow Bank	Wreck first recorded in 2019 survey. Clearly defined on seabed, orientated NNE/SSW with elements that stand proud in the northern half. Closely grouped set of debris and magnetometer targets extend 20 m N and 20 m S of the wreck's centrepoint. 21 m SW of Wreck/Wreckage LA_1061. 36 m NW of boulder cluster. The 2022 survey did not record any target at the location of LA_0738, but did record a boulder feature (GR_contact_0001) 30 m ESE, where a boulder cluster was recorded in 2019
LA_0761	Unknown	300425.8	5853474.3	52.794103	-5.960113	Unknown	Arklow Bank	Wreck first recorded in 2019 survey as being exposed on sand, suggested orientation NW/SE but bow and stern appear to be buried. Debris recorded 10 m to W and 20 m to E. The location was surveyed again in 2022 but it was not detected in any of the

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
								devices deployed above it, which comprised multibeam, SSS and magnetometer
LA_0855	Unknown	300677.9	5854362.6	52.802229	-5.956921	Unknown	Arklow Bank	Possible wreck first recorded in 2019 survey as being partially exposed, orientation unclear, magnetometer target associated (MAG_0127). The 2022 recorded the wreck at the same location (GR_SSS_4454)
LA_0958	Unknown	300677.9	5854362.6	52.802229	-5.956921	Unknown	Arklow Bank	Wreck first recorded in 2019 survey, exposed, orientated E/W. The 2022 survey recorded a target feature located 9 m south of the 2019 location and identified as a wreck (GR_SSS_4456). The observation is consistent with the 2019 record, and the variation in distance can be a result of where the position was recorded along the length of the wreck site
LA_1228	Unknown	301131.0	5855739.7	52.814552	-5.950866	Unknown	Arklow Bank	First recorded in 2019 survey; poorly defined, 27.7 m long, 9.8 m wide, 2.1 m high, seabed scoured around it, magnetometer target 0089 associated, debris cluster recorded 17 m to the S, and other debris recorded 30 m E
LA_1529	Unknown	301879.8	5858841.5	52.842724	-5.941741	Unknown	Arklow Bank	First recorded in 2019 survey; poorly defined, 27.3 m long, 14.5 m wide 1m high, orientated NE/SW, seabed scoured around it, magnetometer target MAG_0054 recorded on trackline 22 m to W
LA_1553	Unknown	301958.7	5859184.7	52.845832	-5.940864	Unknown	Arklow Bank	First recorded in 2019 survey. Well defined linear shape orientated NE/SW, 46.7 m long, 10 m wide, 1.6 m high, corresponding magnetometer target MAG_0051 on survey line 12 m to the W. Debris recorded N, S and W of wreck
LA_1579	Unknown	301747.9	5859529.9	52.848897	-5.944139	Unknown	Arklow Bank	First recorded in 2019 survey, ill-defined at target location on sonar traces but depression indicated on multi-beam, 45.7 m long, 13.2 m wide, 1.4 m high. A cluster of

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
								debris targets is recorded 70 m NW, occupying a 20 m E/W by 15 m N/S area, and is included as being within the footprint of this target
LA_1602	Unknown	302148.4	5859608.3	52.849808	-5.938315	Unknown	Arklow Bank	First recorded in 2019 survey, well defined wreck indicating a broad shape with clear bow and stern. 23.8 m long, 5.8 m wide, 5.3 m high, Orientated NE/SW, associated scour hollow around it and extending to NE. Debris recorded 33 m and 51 m to NW. 30 WSW of Wreck LA_1605, which is considered to be W02788
LA_1641	Unknown	301661.6	5859997.5	52.853034	-5.945782	Unknown	Arklow Bank	First recorded in 2019 survey, poorly defined, 13.8 m long, 5.9 m wide, 0.4 m high, debris and boulders recorded up to 60 m from site
LA_1724	Unknown	301857.7	5860772.1	52.860152	-5.943248	Unknown	Arklow Bank	First recorded in 2019, well defined linear-shaped site with acoustic shadows on two sides, and scour hollow around the site and extending to the N from it in two channels. 38.2 m long, 18.4 m wide, 4.6 m high, orientated E/W. Magnetometer target MAG_0035 associated. Debris and boulders recorded N and S of the site, suggesting a debris trail that could reach 100 m N and 130 m S
LA_3777	Unknown	302632.6	5855331.7	52..811537	-5.928631	Unknown	Arklow Bank	First recorded in 2019 survey, defined as a narrow linear boat-shaped target, 48.8 m long, 5.7 m wide, 0.9 m high, perhaps with some internal detail indicated. Magnetometer target MAG_0095 recorded at one end, debris recorded at other end, two boulders recorded 40 m and 65 m NE and debris 80 m S, suggesting a linear debris field N and S of vessel
R2_1035	Unknown	300650.4	5853694.1	52.796034	-5.956860	Unknown	Arklow Bank	First recorded in 2019 survey, as debris and associated linear scour feature 8.7 m long, 4.8 m wide 1.2 m high, with debris recorded

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
								extending 20 W in a linear fashion, and boulders recorded to E. The 2022 survey did not record any features at this location
R2_1061	Unknown	300809	5853387.7	52.793467	-5.954385	Unknown	Arklow Bank	First recorded in 2019 survey as a small target 5.4 m long, 1.3 m wide, 0.8 m high, with magnetometer correlation (MAG_0135). 21 m NE of Wreck LA_0738. The 2022 survey recorded an acoustic contact (GR Contact 0000) at the location and described it as debris.
R2_1070	Unknown	300689.7	5853034.1	300689.7	5853034.1	Unknown	Arklow Bank	First recorded in 2019 survey, as a debris cluster clearly defined over a 20 m by 10 m area orientated NW/SE with two magnetometer targets MAG_0038, MAG_0272. Sonar trace recorded strongly defined V-shaped feature, indicative of a bow or stern. Scour pocket extends 40 m NE. W02776 lies 90 m to SE. The 2022 survey recorded an acoustic contact (GR 0002) 7 m north of the wreck site location recorded in 2019. Contact 0002 is described as debris and is one item from a cluster of debris recorded in in 2019. The lack of exposed detail recorded in 2022 indicates the dynamic nature of the surface deposits, which appear to have all but buried the site exposed in 2019
ADCO_1	Unknown	302006.8	5861908.6	52.869963	-5.941015	Unknown	Arklow Bank	First recorded in 2019 survey as a possible wreck, comprising a linear feature 18 m in length that was recorded in the 2019 survey as a debris target (UHC19004_SSS_LA_1781), and adjacent to magnetic anomaly MAG_0023
ADCO_2	Unknown	302356.0	5864716.0	52.895686	-5.938418	Unknown	Arklow Bank	First recorded in 2019 survey as a boat-shaped feature in sandy/silt area with some boulders noted, one of which was identified in the 2019 survey as a boulder target (UHC19004_SSS_LA_1890)

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
ADCO_3	Unknown	299390.0	5849702.0	52.759701	-5.973047	Unknown	Arklow Bank	First recorded in 2019 survey as a possible wreck based on debris cluster close to a boat-shaped feature, extending over an area *c.* 50 m in diameter. The debris cluster was identified in the 2019 survey, UHC19004_SSS_LA_0331
ADCO_4	Unknown	301617.0	5855788.0	52.815162	-5.943779	Unknown	Arklow Bank	First recorded in the 2019 survey as a linear feature with possible scour line extending NE. No target was identified at this location in the 2022 survey
ADCO_5	Unknown	303808.0	5863958.0	52.889425	-5.916249	Unknown	Arklow Bank	First recorded in the 2019 survey as a boat-shaped feature lying 70 m SSE of W02785. No target was identified at this location in the 2022 survey
ADCO_6	Unknown	301749.0	5860313.0	52.855942	-5.944838	Unknown	Arklow Bank	First recorded in the 2019 survey a cluster of magnetometer, debris and boulder targets extending over area 22 m E/W x 24 m N/S and recommended to be considered as a wreck. Debris targets identified, centred on UHC19004_SSS_LA_1678 and LA_1679 and magnetometer target MAG_0041
ADCO_7	Unknown	299894.0	5849084.0	52.757778	-5.963333	Unknown	Arklow Bank	First recorded in the 2019 survey where the sss records a defined boat-shaped feature aligned N-S, that is mostly buried. A magnetometer contact was recorded within 10 m of the site, target MAG_0023
GR_SSS_0001	Unknown	295252.03	58524/32	52.838.36	-6.041444	Unknown	Arklow Bay	First recorded in 2022 survey as a possible wreck, boat-shaped anomaly 8 m long, 2 m wide, 4.5 m high, aligned NE-SW, recorded on multibeam, SSS and magnetometer, at a depth of 16 m. Outside the 2019 survey footprint
GR_SSS_0121	Unknown	299831.4	5851542	52.77653	-5.96774	Unknown	Arklow Bank	First recorded in 2022 survey, 33.4 m long, 2.6 m wide, 2.5 m high, in area of sand ripples, the target lies 7 m east of a feature described as debris in 2019

Reference	Date of Loss	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Vessel Name	Place of Loss	Description
GR_SSS_0133	Unknown	299997.7	5851443	52.77571	-5.96521	Unknown	Arklow Bank	First recorded in 2022 survey, 13.7 m long, 2.1 m wide, 0.7 m high, lying 4 m south of contact described as debris in 2019, and 24 m northwest of another debris contact
GR_SSS_137	Unknown	300157.6	5851424	52.77559	-5.96283	Unknown	Arklow Bank	First recorded in 2022 survey, 20.8 m long, 4.4 m wide, 1.3 m high, lying 32 m south of contact described as debris in 2019
GR_SSS_4455	Unknown	300397.9	5853858	52.79753	-5.96076	Unknown	Arklow Bank	First recorded in 2022 survey, 54.5 m long, 16.4 m wide, 0.5 m high, lying located at the crest of a sand ripple. The 2019 survey recorded a larger series of boulders to the north and east of the site than were recorded in 2022, suggesting the dynamic nature of the surface sands at this location
GR_SSS_4457	Unknown	300557.1	5853819	52.79725	-5.95838	Unknown	Arklow Bank	First recorded in 2022 survey, 20.3 m long, 1.6 m wide, 2.1 m high, low-lying linear feature suggestive of lying on its side with former deck area facing north, partially exposed 10 m south of a sand ripple crest.

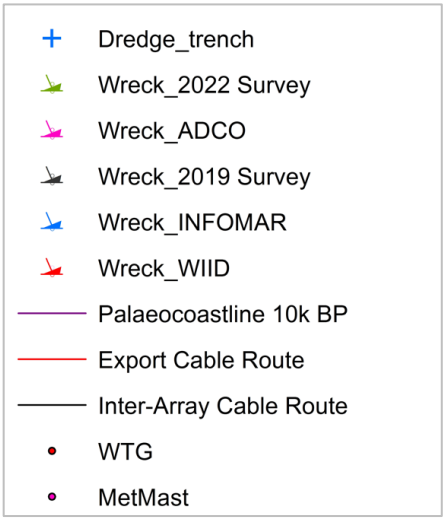
APPENDIX C CATALOGUE OF ARCHAEOLOGICAL EVENTS WITHIN THE PROPOSED WORKS AREA

The catalogue is based on the information collated from the WIID, INFOMAR, GE Wind Energy reports, and the 2019 and 2022 marine geophysical surveys carried out for ABWP Phase II.

The locations of the archaeolgical sites are indicated on **Figure 2** to **Figure 5** in **Section 2** of this report.

The depth profile is that employed in the 2019 survey to indicate depth variations in the georeferenced multibeam tiles as used for the Sub Lease Area.

Key/Legend

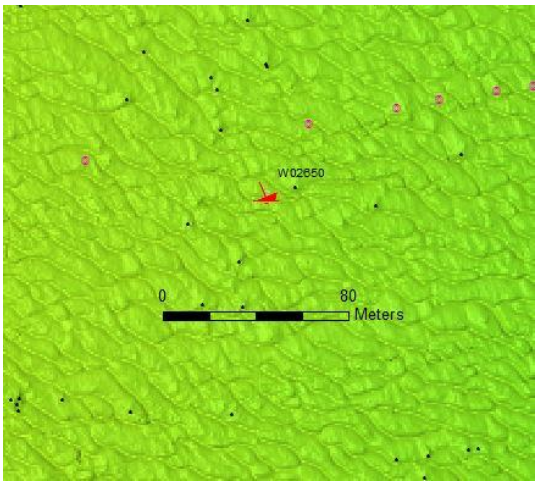
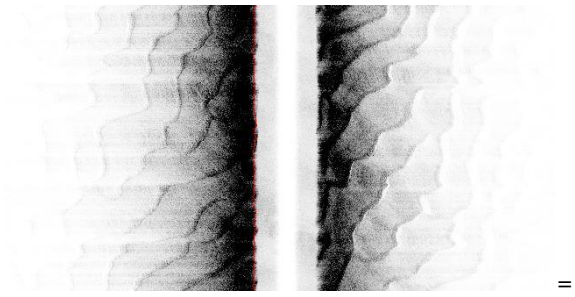


Depth m LAT



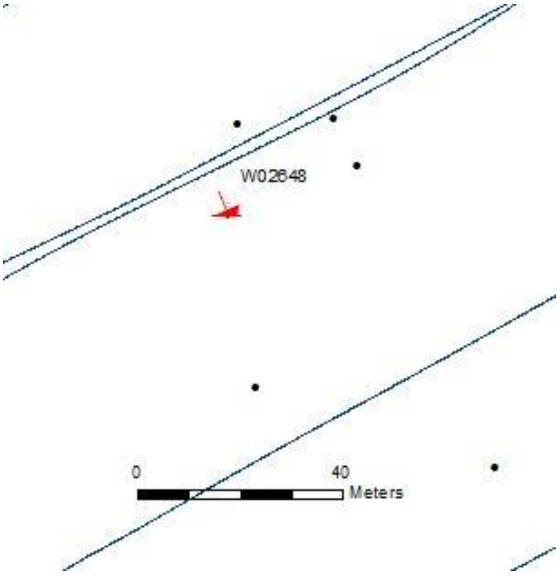
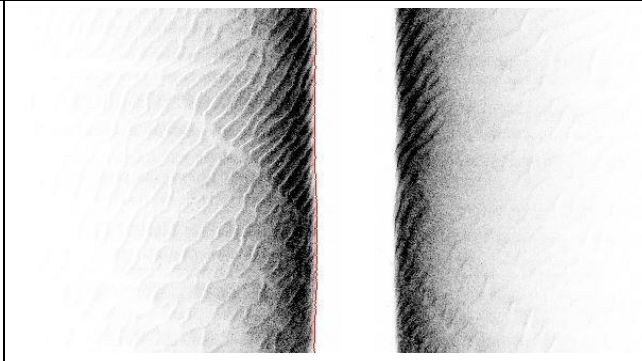
Reference	UTM30N Easting	UTM 30N Northing	Latitude	Longitude	Distance to Offshore Export Cable	Impact Risk
W02650	291160	5854208	52.79720	-6.09778	Within, Export Cable traverses the site	Potential for direct impact from cable removal operation and from WTG removal processes

Description and comment	Length	Width	Height
Possible wreck, sss targets spread over a 200 m² area. They lie in approximately 12-16 m of water. Series of small-scale boulders only recorded in charted location in the 2019 data set.	n/a	n/a	n/a

	 =
2019 survey summary of seabed at charted location	*2019 sonar trace at charted location*

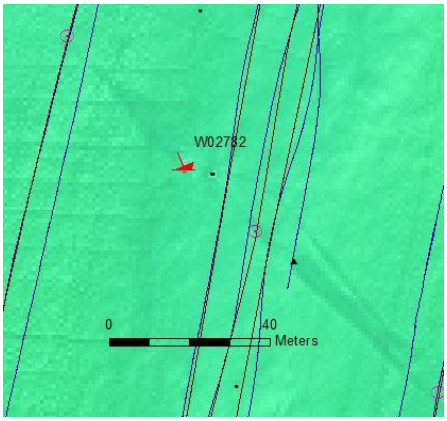
Reference	UTM30N Easting	UTM 30N Northing	Latitude	Longitude	Distance to Offshore Export Cable	Impact Risk
W02648	294672	5855713	52.812213	-6.04821	30 m N of export cable	Potential for indirect impact from cable removal operation

Description and comment	Length	Width	Height
Possible wreck in 15-16 m of water. No anomaly is indicated at the charted location in the 2019 data set.	11	0.4	

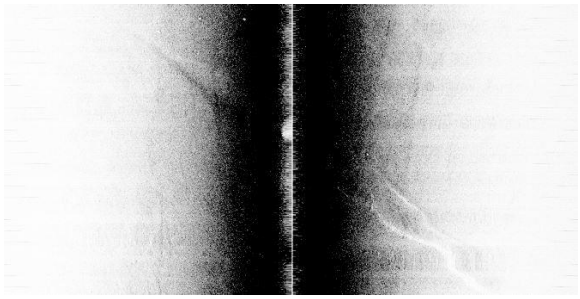
	
2019 survey summary of seabed at charted location, showing survey tracklines	*2019 sonar trace at charted location*

Reference	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Distance to Offshore Export Cable	Impact Risk
W02782	300418	5855376	52 48 40.3N	05 57 40.6W	26 m SW of Export Cable	Potential for indirect impact from cable removal operation

Description and comment	Length	Width	Height
Unknown, possible metal wreck in 32 m of water, 'discovered while power cable [was] being laid' for the Arklow Bank Wind Park Phase I. No anomaly is indicated at the charted location in the 2019 data set. The charted location is very close to the export cable of Arklow Bank Wind Park Phase 1.	n/a	n/a	n/a



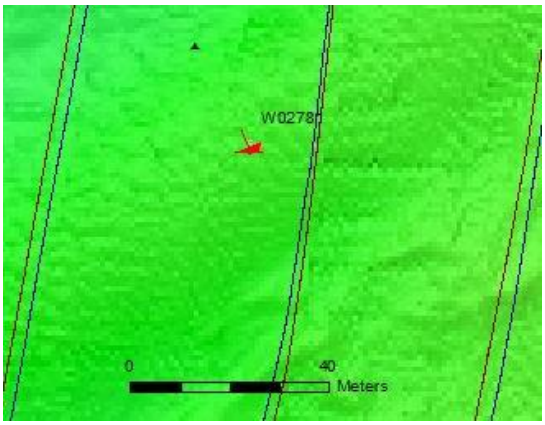
2019 survey summary of seabed at charted location



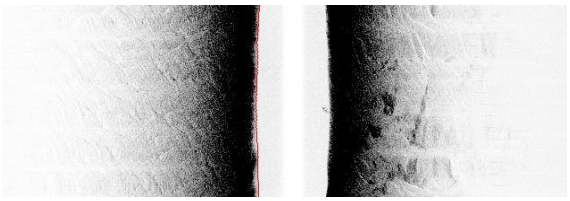
Sonar trace of charted location. The linear feature crossing the sonar trace are the export cables from the windfarm

Reference	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Distance to Offshore Export Cable	Impact Risk
W02781	300952	5854652	52 48 17.549N	05 57 10.925W	Within, Export Cable traverses the site	High potential for direct impact from cable removal operation

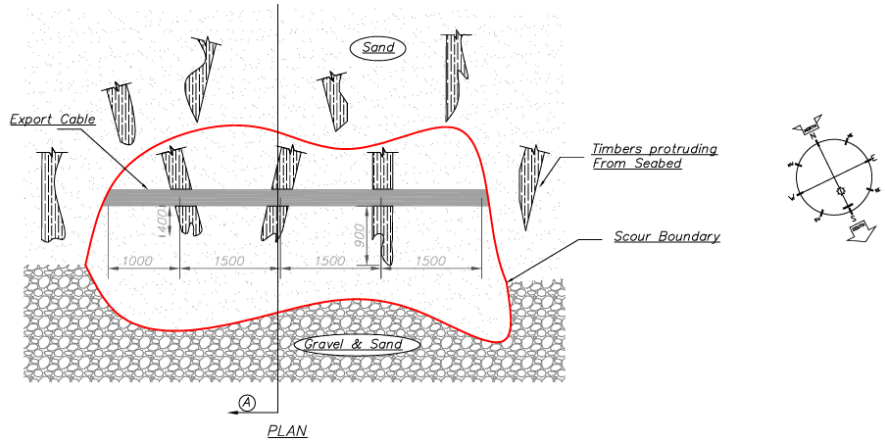
Description and comment	Length	Width	Height
Unknown, wooden wreck, in 10 m of water. Average beam measures 200 m wide and deep. Two timbers lie exposed, attached to strakes at 1.3 m long. Dive inspection of the location in 2015 recorded the export cable running over the wreck in a southeast/northwest direction with 5.5m of export cable being exposed. The cable free spans for a distance of approximately 1.5m before it comes in contact with a timber beam protruding from the seabed. The free span at this point was approximately 0.5m in height. The export cable was sitting on three timber beams from this point and over a 3.0 m section. No anomaly is indicated at the charted location in the 2019 data set. A boulder (target LA_1016) is located 23 m NW. Survey in 2026 for the decommissioning project recorded sonar Object 10 as the wreck site, noting it to be the remains of a wooden hulled vessel that is nearly entirely buried, and that while the overall dimensions of the wreck are unknown, there is a short section (1.5m) of the wooden hull visible that has enabled identification.	n/a	n/a	n/a

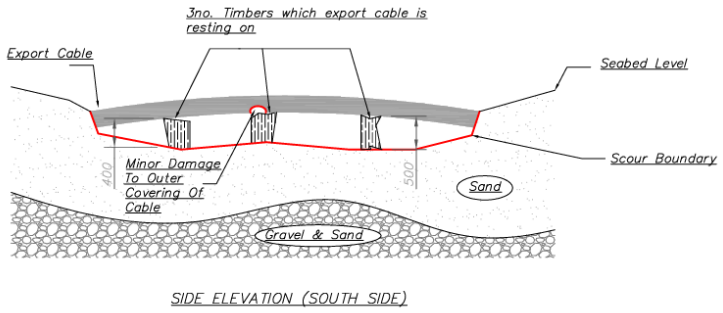


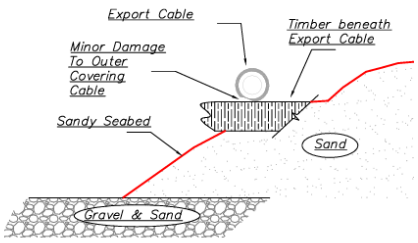
2019 survey summary of seabed at charted location



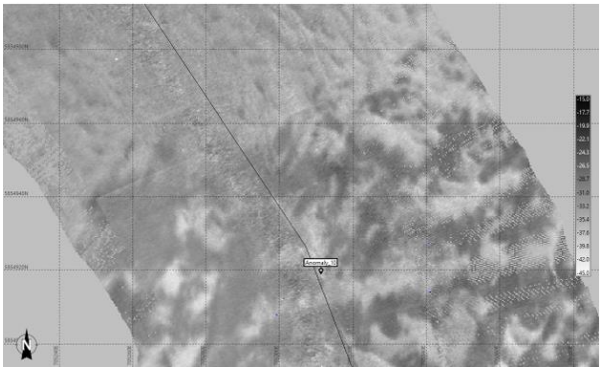
2019 Sonar trace of charted location

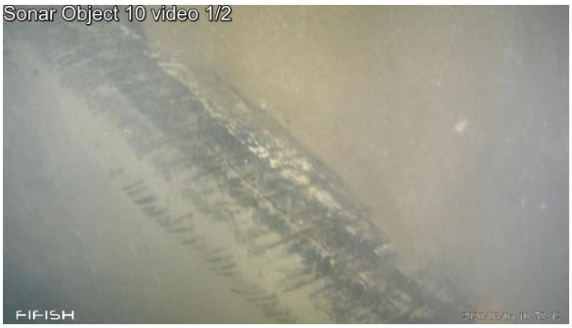






Plan and detail of wreck, McKeown (2015)



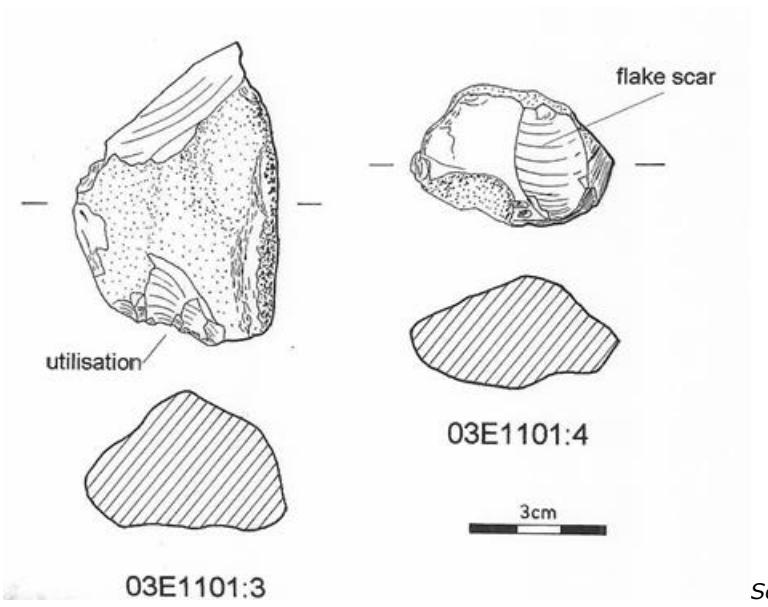


EXPORT CABLE OBSERVED AT WRECK SITE (SONAR OBJECT 10)

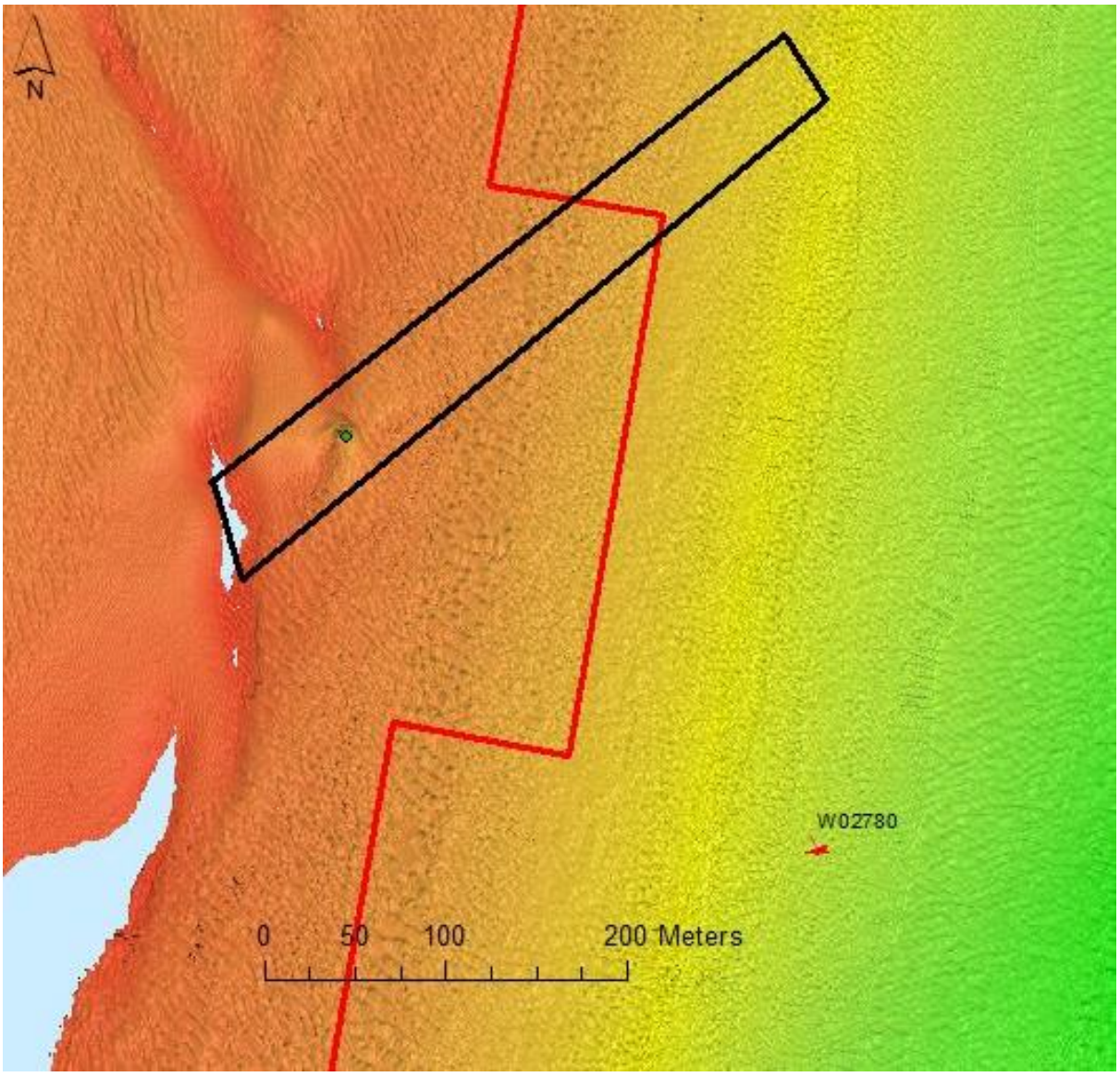
2026 survey imaging. The ROV photograph on the right does not include a scale

Reference	UTM30N Easting	UTM30N Northing	Latitude	Longitude	Distance to Offshore Export Cable	Impact Risk
03E1011:3; 03E1011:4	n/a	n/a	n/a	n/a	Within Sub Lease Area from a 200m-long dredged channel in which WTG 5 lies, extending SW and NE of WTG 5	Potential for direct impact from cable removal operation and from WTG removal processes

Description and comment	Length	Width	Height
Flint scraper (03E1011:3) and flint core (03E1011:4) recovered along with range of early modern/modern ceramic from dredging of 200 m long channel to provide cable access to WTG 5 during Arklow Banks Phase 1 construction.	n/a	n/a	n/a



Source: Campbell (2004)



2019 survey data showing bathymetry, known shipwreck site and detail of boundary of Proposed Works Offshore in red, with dredge channel monitored under 03E1011 highlighted in black. WTG 5 is indicated as a green dot.