



SOFIA **OFFSHORE** **WIND FARM**

MARINE ARCHAEOLOGICAL TECHNICAL REPORT

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1. INTRODUCTION

1.1 RELEVANT DOCUMENTS

1.1.1 This report forms a suite of archaeological documents reporting on the findings from the Sofia offshore site investigation campaign in 2020.

DOCUMENT REFERENCE	DOCUMENT TITLE
003797748	OFTO Stage 1 & 2 geoarchaeological assessment of geotechnical data
003876549	OFTO Stage 1 & 2 geoarchaeological assessment of geotechnical data – Supporting Figures
003848720	Non-OFTO Stage 1 & 2 geoarchaeological assessment of geotechnical data
003876544	Non-OFTO Stage 1 & 2 geoarchaeological assessment of geotechnical data – Supporting Figures
003815261 [This report]	OFTO Marine Archaeological Technical Report
003870389 [supporting figures to this report]	OFTO Marine Archaeological Technical Report – Supporting Figures
003820093	Non-OFTO Marine Archaeological Technical Report
003870387	Non-OFTO Marine Archaeological Technical Report – Supporting Figures
003744026	Doggerbank Offshore Wind Farm C and Sofia Offshore Wind Farm Intertidal Zone maritime heritage walkover survey
003034372	Offshore Archaeological Written Scheme of Investigation [update to approved management plan]

1.2 PROJECT BACKGROUND

1.2.1 Wessex Archaeology was commissioned by Innogy Renewables UK Limited (now RWE), under the subsidiary Sofia Offshore Wind Farm Limited (SOWFL), to prepare a marine archaeological Technical Report for the Sofia Offshore Wind Farm (SOWF) transmission assets (OFTO) ahead of the proposed development. The assessment has been undertaken in accordance with the revised Offshore Written Scheme of Investigation (Wessex

Archaeology 2019) and Protocol for Archaeological Discoveries (PAD) for the Sofia Offshore Wind Farm Limited (SOWFL) developments.

1.2.2 Wessex Archaeology has previously undertaken archaeological assessments of the OFTO (then the Teesside B cable corridor) and the Dogger Bank Round 3 Zone (Tranches A and B) as part of the original Round 3 Zone assessments. The following unpublished reports compiled by Wessex Archaeology have been consulted in order to compile this assessment:

- ✦ Dogger Bank Tranche A (Creyke Beck) Environmental Impact Assessment, Archaeology and Cultural History Technical Report (2013);
- ✦ Dogger Bank Teesside A & B, Marine and Coastal Archaeology Environmental Impact Assessment Technical Report (2014);
- ✦ Sofia Offshore Wind Farm (OCP Area) – Archaeological Assessment of Geophysical Data (2019);
- ✦ Sofia Offshore Wind Farm (Perimeter Area) – Archaeological Assessment of Geophysical Data (2019);
- ✦ Sofia Offshore Wind Farm (Updated OCP Area) – Archaeological Assessment of Geophysical Data (2019);
- ✦ Sofia Offshore Wind Farm Offshore Archaeological Written Scheme of Investigation (2019, Doc. Ref. 003034372);
- ✦ Sofia OWF – Archaeological Assessment of Geophysical Data, Interim Statement for OFTO (2020) DW/211054/22.05.20;
- ✦ Sofia OWF – Archaeological Assessment of Geophysical Data, Interim Statement for OCP (2020) DW/211053/18.06.20.

1.3 DEVELOPMENT PROPOSAL

1.3.1 The OFTO development comprises:

- ✦ One Offshore Converter Platform (OCP), including the converter transformers and their associated 66 kV connection;
- ✦ ~320kV export cables linking the OCP to the Onshore Converter Station (OCS) (484 km maximum to the landfall);
- ✦ 400kV cables linking the OCS to the National Grid onshore substation; and
- ✦ Export cable protection measures (where necessary).

1.3.2 The SOWF layout has a relatively dense perimeter of wind turbine generators (WTGs) around the boundary of the site area, and a widely spaced grid of WTGs in the centre. The OCP is in a broadly central location. One spare WTG location has been identified, near the northern corner of the array. This optional spare location has no structures planned for it but is available in the event that a serious obstruction is identified at another WTG location.

1.3.3 The overall windfarm layout SOF97-100 includes 102 locations in total:

- ✦ 100 WTG (wind turbine generator) locations;
 - ✦ One OCP location; and
 - ✦ One spare location (potential alternative WTG location).
- 1.3.4 Array cable layout SOF97-100-IA-1 includes:
- ✦ 18 strings of array cables linked in pairs into nine loops by interlink cables;
 - ✦ Eight of those strings contain 5 WTGs;
 - ✦ Ten of those strings contain 6 WTGs;
 - ✦ Allowance for a single optional spare WTG location (at location A12) which is crossed by array cable G5: A13-A11; and
 - ✦ It is noted that the export cables exit the WTG array between WTGs J01 and K01.
- 1.3.5 The study area for the Technical Report comprises the OFTO assets including the OCP and export cable extending a maximum of 220 km distance southwest from the proposed SOWF OCP location to landfall at Redcar, North Yorkshire (**Figure 1**). The OCP is also included in the non-OFTO report (Document reference: 003820093) because it may include areas where array cables are due to be laid, therefore there will be duplication in both reports of the data in relation to the OCP area.

1.4 SCOPE OF DOCUMENT

- 1.4.1 This assessment was requested by SOWFL in order to determine, as far as is possible from existing information and recent survey data, the nature, extent and significance of the known and potential marine archaeological resource within the boundary of the proposed Project.
- 1.4.2 This document will not include the OFTO geoarchaeological assessment. That is in the separate report *Sofia Offshore Wind Farm – Export Cable Corridor: Stage 1 & 2 geoarchaeological assessment of geotechnical data* (Document reference: 003797748).

1.5 AIMS AND OBJECTIVES

- 1.5.1 The aim of this marine archaeological Technical Report is to summarise the known and potential archaeological baseline within the Project to subsequently inform the updated Written Scheme of Investigation (WSI) and mitigation strategy therein.
- 1.5.2 The specific objectives of this assessment are to:
- ✦ Provide details of relevant legislation, national and local planning policy, and best practice guidance;
 - ✦ Outline the known and potential marine heritage assets within the study area based on a review of existing information within a defined study area; and
 - ✦ Assess the significance of known and potential heritage assets through weighted consideration of their valued components.

1.6 COPYRIGHT

- 1.6.1 This report may contain material that is non-Wessex Archaeology copyright (e.g. Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licenses, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.

2. LEGISLATION, GUIDANCE AND POLICY

2.1 MARINE POLICY

- 2.1.1 SOWF OFTO assets are partly located within English Territorial Waters (up to 12 nautical miles (nm) from the coast).
- 2.1.2 The following section provides a summary of the national, regional and local planning and legislative framework that governs the treatment of the marine historic environment in the planning process. More comprehensive details are provided in **Appendix B**.

2.2 MARINE LEGISLATION AND POLICY

- 2.2.1 The Marine and Coastal Access Act 2009 (MCAA) is the primary legislation relevant to marine development plans. Under this legislation, marine plans must be consistent with the Marine Policy Statement (MPS; Department for Environment, Food and Rural Affairs 2011) and fully reflect the requirements of the MPS at a local level. Marine plans must also be in accordance with other UK national policy, including the National Planning Policy Framework (NPPF; Department for Communities and Local Government 2012). The MCAA will be incorporated within the requirements of the project's Development Consent Order necessary under the provisions of the Planning Act 2008.
- 2.2.2 Under the MCAA, the UK was divided into marine planning regions, with an associated authority responsible for preparing a Marine Plan for that area. The MPS sets out the framework for preparing Marine Plans and making decisions affecting the marine environment. The MPS also states that Marine Plans must ensure a sustainable marine environment that will protect heritage assets.
- 2.2.3 In England, the MMO have divided the inshore and offshore waters into 11 plan areas for which marine plans are to be produced. The OFTO assets are within England's North East Marine Plan – the North East Inshore and North East Offshore plan areas, with a Draft Plan last revised in the Spring 2020. Available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/857072/Revised_SPP_NE_Clean.pdf, accessed 09/11/2020.
- 2.2.4 The primary planning framework relevant to SOWF is the National Planning Policy Framework (NPPF) published in March 2012 and replacing previous Planning Policy Statement 5 in England (Department for Communities and Local Government 2012) and revised in February 2019. As with the Marine Policy Statement, a core planning principle is to “conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations”.
- 2.2.5 The Government's policy for the delivery of major energy infrastructure is set out in the Overarching National Policy Statement for Energy (EN-1) (Department of Energy & Climate Change (DECC) 2011a), and the National Policy Statement for Renewable Energy Infrastructure (EN-3) (DECC 2011b). These include statements about potential effects on cultural heritage.
- 2.2.6 The following legislation applies to marine heritage and designation within UK Territorial Waters:

- ✧ Protection of Wrecks Act 1973: Section One and Two;
 - ✧ Ancient Monuments and Archaeological Areas Act 1979 (as amended);
 - ✧ Protection of Military Remains Act 1989; and
 - ✧ Merchant Shipping Act 1995.
- 2.2.7 The above legislation provides protection for wrecks of high historical, archaeological or artistic value, as well as allowing military wrecks and aircraft remains to be protected. Ownership of any wreck remains is determined in accordance with the Merchant Shipping Act 1995.
- 2.2.8 More information regarding details of each piece of legislation is presented in **Appendix B**.

2.3 INTERNATIONAL CONVENTIONS

- 2.3.1 The UNESCO Convention on the Protection of Underwater Cultural Heritage was concluded in 2001 and is a comprehensive attempt to codify the law internationally, with regards to underwater cultural heritage. The UK abstained in the vote on the final draft of the Convention, however it has stated that it has adopted the Annex of the Convention, which governs the conduct of archaeological investigations, as best practice for archaeology. Although the UK is not a signatory, the Convention entered into force on 2 January 2009, having been accepted or ratified by 60 member states (as of 27/04/2018).

2.4 MARINE GUIDANCE

- 2.4.1 The following Marine Guidance documents were adhered to in the production of this report:
- ✧ Standard and Guidance for Archaeological Advice by Historic Environment Services (ClfA 2020);
 - ✧ Code of Conduct (ClfA 2014, revised 2019);
 - ✧ Regulations for Professional Conduct (ClfA 2019);
 - ✧ National Policy Statement for Energy (EN-1), London, TSO (Department of Energy & Climate Change 2011);
 - ✧ Military Aircraft Crash Sites – Archaeological Guidance on their Significance and Future Management (English Heritage (now Historic England) 2002);
 - ✧ Managing Significance in Decision-Taking in the Historic Environment ((English Heritage (now Historic England) 2015a);
 - ✧ Management of Research Projects in the Historic Environment: the MoRPHE Project Managers' Guide ((English Heritage (now Historic England) 2015b);
 - ✧ Preserving Archaeological Remains: Decision-Taking for Sites under Development ((English Heritage (now Historic England) 2016);
 - ✧ Deposit Modelling and Archaeology. Guidance for Mapping Buried Deposits, Historic England, Swindon ((English Heritage (now Historic England) 2020);

- ✦ Code of Practice for Seabed Development (Joint Nautical Archaeology Policy Committee (JNAPC) 2006);
- ✦ Annexes to the Protocol Guidance on the Use of the Protocol for Reporting Finds of Archaeological Interest in Relation to Aircraft Crash Sites at Sea (Wessex Archaeology 2008);
- ✦ Our Seas - A shared resource: High level marine objectives (DEFRA 2009);
- ✦ Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (COWRIE 2011);
- ✦ COWRIE Historic Environment Guidance for the Offshore Renewable Energy Sector (Wessex Archaeology 2007);
- ✦ Ships and Boats: Prehistory to Present - Designation Selection Guide (English Heritage (now Historic England) 2012);
- ✦ Standard and Guidance for Historic Environment Desk-based Assessment (ClfA 2014, updated 2017);
- ✦ Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes (English Heritage (now Historic England) 2013);
- ✦ Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record (English Heritage (now Historic England) 2015c);
- ✦ Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables Projects. (The Crown Estate 2010) (hereafter referred to as 'Model Clauses'); and
- ✦ Protocol for Archaeological Discoveries: Offshore Renewables Projects (ORPAD). (The Crown Estate 2014).

3. METHODOLOGY

3.1 STUDY AREA

- 3.1.1 The study area is located within the southern North Sea and comprises a corridor extending a maximum of 220 km distance southwest from the proposed SOWF OCP location to landfall at Redcar, North Yorkshire as well as the OCP itself (**Figure 1**).
- 3.1.2 While the construction corridor is generally 175 m wide for much of the route, the geophysical study area as used in this assessment is a corridor of varying width, generally approximately 300 m wide but ranging from approximately 200 m wide in offshore areas to approximately 1,000 m wide in the nearshore area, defined by the extent of coverage of the multibeam echosounder data (**Figure 1**). It also comprises the full 2.5 x 2.5 km box around the proposed OCP location (hereafter OCP study area).

3.2 ARCHAEOLOGICAL DESK-BASED ASSESMENT

KEY THEMES

- 3.2.1 The methodology follows the best practice professional guidance outlined by the Chartered Institute for Archaeologists' (CIfA) Standard and Guidance for Historic Environment Desk-Based Assessment (CIFA 2017).
- 3.2.2 The marine themes relevant to marine archaeological baseline as assessed in this report are:
- ✦ Seabed prehistory (for example, palaeochannels and other features that contain prehistoric sediment, and derived Palaeolithic artefacts e.g. handaxes); and
 - ✦ Seabed features, including maritime sites (such as shipwrecks and associated material including cargo, obstructions and fishermen's fasteners) and aviation sites (aircraft crash sites and associated debris).

DATA SOURCES

- 3.2.3 Several sources of information were consulted in order to compile this Technical Report. Data generated from marine geophysical surveys were a main component of the data and are discussed further in **Section 3.3**. The following data sources were consulted in order to compile the desk-based element of the assessment:
- ✦ Recorded wreck and obstruction data acquired via the United Kingdom Hydrographic Office (UKHO);
 - ✦ Geophysical survey data supplied by Fugro GB Marine Limited (Fugro 2020);
 - ✦ Previous investigations from the Study Area (Wessex Archaeology 2013; 2014);
 - ✦ Written Scheme of Investigation (WSI) data sets (Wessex Archaeology 2019);

- ✦ The National Record of the Historic Environment (NRHE) maintained by Historic England, comprising data for marine archaeological sites, find spots and archaeological events;
- ✦ Historic Environment Records (HER) held by Redcar and Cleveland Borough Council;
- ✦ Relevant mapping including Admiralty Charts, British Geological Survey (BGS), Ordnance Survey and historic maps; and
- ✦ Relevant primary and secondary sources and grey literature held in Wessex Archaeology's own library, and those available through the Archaeology Data Service and other websites (presented in the 'References').

DATA STRUCTURE

- 3.2.4 In order to compile the marine archaeological baseline as presented in this report, where possible, the sources in **Section 3.2.3** of this document were incorporated into a project Geographic Information System (GIS) using ArcGIS 10.6.1, enabling the data to be spatially analysed. The data were subsequently compiled into gazetteers of maritime and aviation resources within the study area; these were used to inform the archaeological assessment of geophysical data that are presented in **Sections 4 and 5**.
- 3.2.5 Within this assessment, the gazetteer is compiled and presented in Universal Transverse Mercator (UTM) Zone 31 North projected from a World Geodetic System (WGS) 1984 datum.
- 3.2.6 Information relating to the archaeological and cultural heritage that did not include location or positional information were also used to inform the marine archaeological baseline assessment where relevant.
- 3.2.7 The HER records have been discriminated between records for which there is known material on the seabed and 'recorded losses' (vessels that are known to have been lost, but do not, except by chance, have material on the seabed at their recorded loss location).
- 3.2.8 For archaeological sites that were recorded in the NRHE, HER and UKHO datasets, the co-ordinates from the UKHO are the ones used in the gazetteer and GIS. As these relate to surveyed co-ordinates and supporting survey metadata, they are judged likely to be more accurate (unless other verifiable spatial data is available).

CHRONOLOGY

- 3.2.9 Archaeological material is generally studied within a framework of 'periods' or 'ages' that reflect the activities and cultural changes taking place over time. All dates are referred to as BCE (Before Common Era), BP (Before Present) or AD (Anno Domini) within the text. BCE refers to calibrated radiocarbon chronology that can be considered equivalent to calendar years. BP dates are used for periods of time older than circa 10,000 years ago.
- 3.2.10 A list of the main archaeological periods of the British Isles is referred to in the text, along with their broadly defined dates, are presented in **Appendix A** which reflects the archaeological record recorded from coastal and marine contexts.

SEABED PREHISTORY

- 3.2.11 A marine archaeological baseline summary and baseline environment assessment has been included as part of the SOWF Offshore Archaeological WSI (Wessex Archaeology 2019) These assessments have identified key areas of archaeological and geoarchaeological potential associated with palaeolandscape features identified during earlier geotechnical and geophysical investigations.
- 3.2.12 The results of the assessments, where relevant to palaeolandscape features of archaeological potential, are described in **Section 4**, with full-size figures included in the SOWF Offshore Archaeological WSI (Wessex Archaeology 2019).
- 3.2.13 Further geoarchaeological studies have been conducted for SOWFL and are reported separately as *Sofia Offshore Wind Farm – Export Cable Corridor: Stage 1 & 2 geoarchaeological assessment of geotechnical data* (Document reference: 003797748).

SEABED FEATURES: MARITIME AND AVIATION ARCHAEOLOGY

- 3.2.14 The sources of data for maritime and aviation history and archaeology listed in **Section 3.2.3** above have been collated and summarised in order to develop a baseline of marine cultural heritage for the study area, and assess the potential for encountering unknown shipwreck and aircraft crash sites (**Section 5**). Sources of the most data relevant to maritime and aviation archaeology are the NRHE, HER and UKHO records.
- 3.2.15 The data obtained were reviewed and those located within the study area were extracted and compiled to form a gazetteer as part of the known maritime and aviation baseline. These records were combined with the geophysical dataset (**Appendix C**) and were added to the project GIS.
- 3.2.16 The research for maritime and aviation history was then combined with the archaeological assessment of geophysical survey data (**Section 3.3**).
- 3.2.17 Data relating to Recorded Losses were also extracted from the NRHE, HER and UKHO data sources. Recorded Losses are records for ships or aircraft that are known to have wrecked or crashed offshore, but for which the exact locations are not known. The positional data of these records is unreliable and serves only to provide an indication of the types of vessels that passed through the area and the wrecking incidents that are known to have occurred in the general region. Whilst the remains of these vessels and aircraft are expected to exist somewhere on the seafloor, their location is unknown. As such, they signify the potential maritime and aviation resource.
- 3.2.18 Details regarding maritime Recorded Losses are presented in a gazetteer format (**Appendix D**). These records have retained their original identification assigned by the UKHO, NRHE or HER for ease of cross-referencing. Where records are duplicated between datasets all corresponding identification numbers have been included but are referred to in the text by the HER Monument ID if one exists. The gazetteer does not include positional data due to the inaccuracies therein.
- 3.2.19 The baseline assessment of maritime and aviation archaeology was further supplemented by a review of relevant primary and secondary source material in order to provide an indication on the nature of maritime and aviation activity across the region. As well as summarising the known archaeological resource, the baseline assessment underlines the potential for encountering unknown shipwreck and aircraft crash sites within the study area (English Heritage 2002; Wessex Archaeology 2008a; 2008b).

3.3 GEOPHYSICAL METHODOLOGY

INTRODUCTION

3.3.1 This report consists of an assessment of geophysical survey data comprising sidescan sonar (SSS), magnetometer (Mag.) and multibeam echosounder (MBES) datasets. The data were acquired for the project by Fugro GB Marine Limited (Fugro).

AIMS AND OBJECTIVES

3.3.2 The aims and objectives of the geophysical assessment are:

- ✦ confirm the presence of known or previously located marine sites of archaeological potential and to comment on their apparent character;
- ✦ identify, locate and characterise hitherto unrecorded marine sites of archaeological potential;
- ✦ comment on the potential effects of development on known archaeological sites; and
- ✦ provide recommendations for archaeological mitigation.

DATA SOURCES

3.3.3 A number of data sources were consulted during this assessment, including:

- ✦ Geophysical survey datasets (SSS, MBES and Mag.) acquired by Fugro in 2020;
- ✦ Recorded wreck and obstruction data acquired via the UKHO;
- ✦ Relevant background mapping from the area, e.g. Admiralty Charts received via MarineFind;
- ✦ Previous geophysical results and archaeological desk-based assessments (DBA) associated with the Dogger Bank Round 3 Zone (Wessex Archaeology 2013; 2014); and
- ✦ Client supplied mobilisation and survey reports (Fugro 2020a; 2020b; 2020c; 2020d).

TECHNICAL SPECIFICATIONS

3.3.4 Geophysical data were acquired by Fugro between February and July 2020 using the vessels *Fugro Seeker*, *Fugro Mercator*, *Fugro Pioneer* and *Fugro Frontier* (export cable), and the *Fugro Venturer* (OCP).

3.3.5 Survey specifications varied along the survey area. Line spacings in the Nearshore area were 2.5 m for unexploded ordnance (UXO) detection (Mag.). The other data types were acquired at a 10 m spacing inshore (landfall to KP 0.780) and 15 m further offshore (KP 0.780 to KP 3.360).

3.3.6 Line spacings for Block A also varied, at 25 m closer nearshore and increasing to 50 m further offshore for all data types. Line spacing for Blocks B to G, and for the OCP area, was 50 m for all data types. Additional gradiometer data was collected in Blocks B, C, and D at a line spacing of 12.5 m. Further details on the equipment used is in **Table 1**.

Table 1 Summary of Survey Equipment.

SURVEY COMPANY	SURVEY VESSEL	DATA TYPE	EQUIPMENT	DATA FORMAT
Fugro	<i>Fugro Seeker</i>	MBES	Dual Teledyne RESON 7125 multibeam echosounders	.xyz
		SSS	EdgeTech 4200 (300 / 900 kHz), 25 m range	.xtf
		Mag.	Geometrics G-882 (both single and as gradiometer)	.csv
		Positioning	Fugro StarPack GNSS	N/A
	<i>Fugro Mercator</i>	MBES	Dual Teledyne RESON Seabat T50	.xyz
		SSS	EdgeTech 4205 (230 / 540 / 950 kHz), 900 kHz at 35 m range, 600 kHz at 65 m range	.xtf
		Mag.	Geometrics G-882	.csv
		Positioning	Fugro Starfix G2+ positioning solution	N/A
	<i>Fugro Pioneer</i>	MBES	Dual head Kongsberg EM2040	.xyz
		SSS	EdgeTech 4200 (300 / 600 kHz), 600 kHz at 65 m range, 300 kHz at 65 m range	.xtf
		Mag.	Geometrics G-882	.xyz and .csv
		Positioning	Fugro StarPack GNSS receiver with Starfix.G2+ corrections	N/A

SURVEY COMPANY	SURVEY VESSEL	DATA TYPE	EQUIPMENT	DATA FORMAT
	<i>Fugro Frontier</i>	Mag.	Geometrics G-882	.csv
		Positioning	Fugro Starfix.G2+ positioning solution, with backups from Starfix.XP2 and	N/A
	<i>Fugro Venturer</i>	MBES	Dual head Kongsberg EM2040	.xyz
		SSS	Edgetech 4205 (230 / 550 kHz, 65 m range)	.xtf
		Mag.	Geometrics G-882	.xls
		Positioning	Fugro StarFix DGNSS	N/A

3.3.7 The survey data were acquired in WGS 1984 UTM Zone 31N projected coordinates, and the results are presented in the same system.

PROCESSING

3.3.8 A number of datasets were assessed over the study area; each dataset was processed separately using the following software **Table 2**.

Table 2 Software used for geophysical assessment.

DATASET	PROCESSING SOFTWARE	INTERPRETATION AND RATIONALISATION
MBES	QPS Fledermaus v7.8.2	ArcMap v10.6
SSS	CodaOctopus Survey Engine v5.11	
Mag.	MagPick v3.25	

3.3.9 The MBES data were analysed to identify any unusual seabed structures that could be shipwrecks or other anthropogenic debris. The data were gridded at 0.25 m and analysed using QPS Fledermaus software, which enables a 3-D visualisation of the acquired data and geo-picking of seabed anomalies.

- 3.3.10 The high frequency .xtf SSS data files were converted into .cod format and processed using CodaOctopus Survey Engine Sidescan+ software. This allowed the data to be replayed with various gain settings in order to optimise the quality of the images. The data were interpreted for any objects of possible anthropogenic origin. This involves creating a database of anomalies within Coda by tagging individual features of possible archaeological potential, recording their positions and dimensions, and acquiring an image of each anomaly for future reference.
- 3.3.11 A mosaic of the SSS data is produced during this process to assess the quality of the sonar towfish positioning. This process allows the position of anomalies to be checked between different survey lines and for the positioning to be further refined if necessary.
- 3.3.12 The form, size, and/or extent of an anomaly is a guide to its potential to be an anthropogenic feature and therefore of archaeological interest. A single small but prominent anomaly may be part of a much more extensive feature that is largely buried. Similarly, a scatter of minor anomalies may be unrelated individual features, define the edges of a buried but intact feature, or may be all that remains as a result of past impacts from, for example, dredging or fishing. Assessment is made of such groups of anomalies during data interpretation to determine which of these alternatives is the most likely.
- 3.3.13 The Mag. data were processed using Geometrics MagPick software and proprietary software in order to identify any discrete magnetic contacts which could represent buried ferrous debris or structures such as wrecks.
- 3.3.14 The MagPick software enables both the visualisation of individual lines of data and gridding of data to produce a magnetic anomaly map. The data were first smoothed to try and eliminate any spiking. A trend was then fitted to the resulting data, and the trend values subtracted from the smoothed values. This was carried out to remove natural variations in the data (such as diurnal variation in magnetic field strength and changes in geology). The processed data were then gridded to produce a map of magnetic anomalies, and individual anomalies tagged based on the grid and individual profile lines in proprietary software. Images are taken in a similar process to that of the SSS data.
- 3.3.15 For the purposes of this assessment, any identified magnetic anomalies have been classified as small (< 49 nT), medium (50 nT to 99 nT), or large (>100 nT) anomalies depending on their amplitude.

DATA QUALITY

- 3.3.16 Once processed, the geophysical data sets were individually assessed for quality and their suitability for archaeological purposes and rated using the following criteria **Table 3**.

Table 3 Criteria for assigning data quality rating.

DATA QUALITY	DESCRIPTION
Good	Data which are clear and unaffected or only slightly affected by weather conditions, sea state, background noise or data artefacts. Seabed datasets are suitable for the interpretation of upstanding and partially buried wrecks, debris fields, and small individual anomalies. The structure of wrecks is clear, allowing assessments on wreck condition to be made. Subtle reflectors are clear within SBP data. These data provide the highest probability that anomalies of archaeological potential will be identified.

DATA QUALITY	DESCRIPTION
Average	Data which are moderately affected by weather conditions, sea state and noise. Seabed datasets are suitable for the identification of upstanding and partially buried wrecks, the larger elements of debris fields and dispersed sites, and larger individual anomalies. Dispersed and/or partially buried wrecks may be difficult to identify. Interpretation of continuous reflectors in SBP data is problematic. These data are not considered to be detrimentally affected to a significant degree.
Below Average	Data which are affected by weather conditions, sea state and noise to a significant degree. Seabed datasets are suitable for the identification of relatively intact, upstanding wrecks and large individual anomalies. Dispersed and/or partially buried wrecks, or small isolated anomalies may not be clearly resolved. Small palaeogeographic features, or internal structure may not be resolved in SBP data.

3.3.17 The MBES data were rated as 'Good/Average' using the above criteria. The data quality and resolution of 0.25 m was found to be of a good standard and suitable for archaeological assessment of objects and debris over 0.5 m in size.

3.3.18 The SSS data have been rated as 'Average' using the above criteria table. Some weather effects were identified on some survey lines, but this was not deemed to detrimentally affect the data to a significant degree and the data are considered suitable for archaeological assessment.

3.3.19 The Mag. data have been rated as 'Average' using the above criteria table. Data spiking was identified on some survey lines, and the background geology closer to shore was found to produce a highly variable background signal. However, this did not detrimentally affect the data to a significant degree, and the data are considered suitable for archaeological assessment.

3.3.20 The data quality for the various data sets can be summarised as follows **Table 4**:

Table 4 Data quality for assessed data sets.

SURVEY DETAILS			DATA QUALITY		
Operator and Year	Area	Vessel	MBES	SSS	Mag.
Fugro 2020	Nearshore	<i>Fugro Seeker</i>	Good	Average	Average
	Block A	<i>Fugro Mercator</i>	Good	Average	Average
	Blocks B to G	<i>Fugro Frontier</i>	Good/Average	Average	Average
	OCP	<i>Fugro Venturer</i>	Average	Average	Average

ANOMALY GROUPING AND DISCRIMINATION

- 3.3.21 The previous section describes the initial interpretation of all available geophysical datasets which were conducted independently of one another. This inevitably leads to the possibility of any one object being the cause of numerous anomalies in different datasets and apparently overstating the number of archaeological features in the study area.
- 3.3.22 To address this fact the anomalies were grouped together; allowing one ID number to be assigned to a single object for which there may be, for example, a UKHO record, a MBES anomaly, and multiple SSS anomalies.
- 3.3.23 Once all the geophysical anomalies and desk-based information have been grouped, a discrimination flag is added to the record in order to discriminate against those which are not thought to be of an archaeological concern. For anomalies located on the seabed, these flags are ascribed as follows, **Table 5**.

Table 5 Criteria discriminating relevance of identified features to proposed scheme.

OVERVIEW CLASSIFICATION	DISCRIMINATION	CRITERIA	DATA TYPE
Archaeological	A1	Anthropogenic origin of archaeological interest	MBES, SSS, Mag.
Archaeological	A2	Uncertain origin of possible archaeological interest	MBES, SSS, Mag.
Archaeological	A3	Historic record of possible archaeological interest with no corresponding geophysical anomaly	MBES, SSS, Mag.
Non-archaeological	U1	Not of anthropogenic origin	MBES, SSS, Mag.
Non-archaeological	U2	Known non-archaeological feature / Feature of non-archaeological interest	MBES, SSS, Mag.
Non-archaeological	U3	Recorded loss	MBES, SSS, Mag.
Non-impact	O1	Outside horizontal footprint of study area	MBES, SSS, Mag.

OVERVIEW CLASSIFICATION	DISCRIMINATION	CRITERIA	DATA TYPE
Non-impact	O3	Area subsequently cleared after data acquired, anomaly/object recovered	MBES, SSS, Mag.

- 3.3.24 The grouping and discrimination of information at this stage is based on all available information and is not definitive. It allows for all features of potential archaeological interest to be highlighted, while retaining all the information produced during the course of the geophysical interpretation and desk-based assessment for further evaluation should more information become available.
- 3.3.25 Any anomalies located outside of the defined study areas, either previously recorded in known databases (e.g. UKHO) or identified during this geophysical assessment, are deemed beyond the scope of the current assessment and are consequently not included in this report.

3.4 IMPACT ASSESSMENT CRITERIA

ASSET SENSITIVITY

- 3.4.1 In order to assess the potential impacts of a development upon marine cultural heritage, the conceptual approach known as the 'source-pathway-receptor' model is adopted. This approach is based on the identification of the source (i.e. the origin of a potential impact), the pathway (i.e. the means by which the effect of the activity could impact a receptor) and the receptor that may be impacted (e.g. known/potential heritage assets). For the significance of any given impact to be fully understood and for appropriate mitigation to be proposed, the sensitivity of any marine cultural heritage assets that may be impacted need to be considered. This section outlines how the sensitivity of marine heritage assets is ascertained.
- 3.4.2 The capability of an asset to accommodate change and its ability to recover if affected is a function of its sensitivity. Asset sensitivity is typically assessed via the following factors:
- ✦ Adaptability - the degree to which an asset can avoid or adapt to an effect;
 - ✦ Tolerance - the ability of an asset to accommodate temporary or permanent change without significant adverse impact;
 - ✦ Recoverability - the temporal scale over and extent to which an asset will recover following an effect; and
 - ✦ Value - a measure of the asset's importance, rarity and worth.
- 3.4.3 Archaeological and cultural heritage assets cannot typically adapt, tolerate or recover from physical impacts resulting in material damage or loss caused by development. Consequently, the sensitivity of each asset is predominantly quantified only by its value.

VALUE OF AN ASSET

- 3.4.4 Based on Historic England’s Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (English Heritage (now Historic England) 2008, 21), the significance of a historic asset ‘embraces all the diverse cultural and natural heritage values that people associate with it, or which prompt them to respond to it’.
- 3.4.5 Within this document, significance is weighed by consideration of the potential for the asset to demonstrate the following value criteria:
- ✦ Evidential value – deriving from the potential of a place to yield evidence about past human activity;
 - ✦ Historical value – deriving from the ways in which past people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative;
 - ✦ Aesthetic value – deriving from the ways in which people draw sensory and intellectual stimulation from a place; and
 - ✦ Communal value – deriving from the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory. Communal values are closely bound up with historical (particularly associative) and aesthetic values but tend to have additional and specific aspects.
- 3.4.6 With regards to assessing the value of shipwrecks, the following criteria listed in English Heritage’s Ships and Boats: Prehistory to Present – Designation Selection Guide (English Heritage (now Historic England) 2012) can be used to assess an asset in terms of its value:
- ✦ Period;
 - ✦ Rarity;
 - ✦ Documentation;
 - ✦ Group value;
 - ✦ Survival/condition; and
 - ✦ Potential.
- 3.4.7 These aspects help to characterise each asset whilst also comparing them to other similar assets. The criteria also enable the potential to contribute to knowledge, understanding and outreach to be assessed.
- 3.4.8 The value of known archaeological and cultural heritage assets were assessed on a five-point scale using professional judgement informed by criteria provided in **Table 6** below.



Table 6 Criteria to assess the archaeological value of marine assets.

VALUE	DEFINITION
High	Best known, only example or above average example and / or significant or high potential to contribute to knowledge and understanding and / or outreach. Assets with a demonstrable international or national dimension to their importance are likely to fall within this category.

VALUE	DEFINITION
	<p>Wrecked ships and aircraft that are protected under the Protection of Wrecks Act 1973, Ancient Monuments and Archaeological Areas Act 1979 or Protection of Military Remains Act 1986 with an international dimension to their importance, plus as-yet undesignated sites that are demonstrably of equivalent archaeological value.</p> <p>Known submerged prehistoric sites and landscapes with the confirmed presence of largely <i>in situ</i> artefactual material or palaeogeographic features with demonstrable potential to include artefactual and/or palaeoenvironmental material, possibly as part of a prehistoric site or landscape.</p>
Medium	<p>Average example and / or moderate potential to contribute to knowledge and understanding and / or outreach.</p> <p>Includes wrecks of ships and aircraft that do not have statutory protection or equivalent significance, but have moderate potential based on a formal assessment of their importance in terms of build, use, loss, survival and investigation.</p> <p>Prehistoric deposits with moderate potential to contribute to an understanding of the palaeoenvironment.</p>
Low	<p>Below average example and / or low potential to contribute to knowledge and understanding and / or outreach.</p> <p>Includes wrecks of ships and aircraft that do not have statutory protection or equivalent significance, but have low potential based on a formal assessment of their importance in terms of build, use, loss, survival and investigation.</p> <p>Prehistoric deposits with low potential to contribute to an understanding of the palaeoenvironment.</p>
Negligible	<p>Poor example and / or little or no potential to contribute to knowledge and understanding and / or outreach. Assets with little or no surviving archaeological interest.</p>
Unknown	<p>There is not presently enough information available about the site to assess its value.</p>

3.4.9 Furthermore, *On the Importance of Shipwrecks* (Wessex Archaeology 2006) suggests importance can be assessed through the following criteria: build, use, loss, survival and investigation.

3.4.10 To further supplement this approach, the ALSF-funded Marine Class Description and principles of selection for aggregate producing areas project (ALSF 5383), undertaken by Wessex Archaeology (2008b), proposed a composite timeline that considers wrecks in five distinct date ranges. The timeline considers the broad chronology of shipbuilding, thus drawing out generalisations regarding the age and special value of sites. The timeline is summarised as follows:

-  Pre- 1500 AD: this covers the period from the earliest Prehistoric evidence for human maritime activity to the end of the medieval period, c. 1508. Little is known of watercraft or vessels from this period and archaeological evidence of them is so rare that all examples of craft are likely to be of special value;
-  1500 to 1815: this encompasses the Tudor and Stuart periods, the English Civil War, the Anglo-Dutch Wars and later the American Independence and French Revolutionary Wars.

Wreck and vessel remains from this date are also quite rare, and can be expected to be of special value;

- ✿ 1816 to 1913: this period witnessed great changes in the way in which vessels were built and used, corresponding with the introduction of metal to shipbuilding, and steam to propulsion technology. Examples of watercraft from this period are more numerous and as such, it is those that specifically contribute to an understanding of these changes that should be regarded as having special value;
- ✿ 1914 to 1945: this period encompasses the First World War (WWI), the Interwar years and the Second World War (WWII). This date range contains Britain's highest volume of recorded boat and ships losses. Those which might be regarded as having special interest are likely to relate to technological changes and to local and global activities during this period; and
- ✿ Post 1945: the final period extends from 1946 through the post-war years to the present day. Vessels from this date range would have to present a strong case if they are to be considered of special interest.

- 3.4.11 The perceived value of each marine archaeological asset is generally assessed and assigned on a site-by-site basis, depending on the criteria listed in **Table 6**. The UK Marine Policy Statement (DEFRA 2011, 90) describes a heritage asset as holding a degree of significance. Significance relates to the heritage interest of an asset that may be archaeological, architectural, artistic or historic.

3.5 ASSUMPTIONS AND LIMITATIONS

ARCHAEOLOGICAL DATA

- 3.5.1 Data used to compile this report consists of primary geophysical survey data and secondary information derived from a variety of sources, only some of which have been directly examined for the purposes of this assessment. The assumption is made that the secondary data, as well as that derived from other secondary sources, are reasonably accurate.
- 3.5.2 The records held by the UKHO, NRHE, HER and the other sources used in this assessment are not a record of all surviving cultural heritage assets, rather a record of the discovery of a wide range of archaeological and historical components of the marine historic environment. The information held within these is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown. In particular, this relates to buried archaeological features.

4. MARITIME AND AVIATION ARCHAEOLOGY BASELINE

4.1 INTRODUCTION

- 4.1.1 The following assessment of the maritime resource is based on records of known shipwrecks, aircraft crash sites and obstructions combined with recent archaeological assessment of geophysics data. A marine archaeological assessment of palaeogeography has been submitted in *Sofia Offshore Wind Farm – Export Cable Corridor: Stage 1 & 2 geoarchaeological assessment of geotechnical data* (Wessex Archaeology 2020c).

4.2 DESIGNATED SITES

- 4.2.1 There are currently no sites within the study area that are subject to statutory protection from the Protection of Wrecks Act 1973, the Protection of Military Remains Act 1986 or the Ancient Monuments and Archaeological Areas Act 1979; the three legislative acts that could be used to protect marine archaeological sites.

4.3 KNOWN MARITIME AND AVIATION SITES

- 4.3.1 There are two charted wreck sites within the export cable route geophysical study area (**70657**; **7954**). There are no charted aircraft crash sites located within the study area. The potential for the discovery of previously unknown shipwrecks sites and aircraft crash sites and material is discussed below.

4.4 GEOPHYSICAL SEABED FEATURES ASSESSMENT

- 4.4.1 The geophysical data were assessed to identify features of archaeological potential relating to maritime and aviation activity.
- 4.4.2 As previously stated, the geophysical study area is defined as the extents of the MBES data coverage (**Figure 1**). Any anomalies located outside of the defined geophysical study area, either previously recorded in known databases (e.g. UKHO) or identified during this geophysical assessment, are deemed beyond the scope of the current assessment and are subsequently not included in this report.
- 4.4.3 The results of this assessment are collated in gazetteer format detailed in **Appendix C**, and their distribution illustrated in **Figures 2a-2x**.
- 4.4.4 As part of the assessment, the interpretation was cross-correlated with the results from previous phases of work associated with the Dogger Bank Round 3 Zone (Wessex Archaeology 2013; 2014). Where anomalies from previous work have been identified and retained, they also retain their original ID number (although dimensions and descriptions are updated to reflect the new data where appropriate). Some anomalies have been reinterpreted based on the new geophysical data; where these are now deemed to be natural or otherwise not of archaeological potential, they have been removed from the final gazetteer.

4.4.5 The survey data were acquired, processed, and interpreted in a number of blocks (Nearshore, Blocks A – G). However, for the purposes of this report, the export cable is treated as one single study area, and the OCP as a separate smaller study area. The block within which each anomaly was identified is detailed in the gazetteer in **Appendix C**.

4.4.6 A total of 673 features have been identified in the export cable route geophysical study area and 10 within the OCP study area as being of possible archaeological potential within the study area. These have been discriminated as shown in **Table 7**:

Table 7 Anomalies of archaeological potential within the geophysical study area.

ARCHAEOLOGICAL DISCRIMINATION	QUANTITY: EXPORT CABLE ROUTE	QUANTITY: OCP	INTERPRETATION
A1	4	0	Anthropogenic origin of archaeological interest
A2	662	10	Uncertain origin of possible archaeological interest
A3	7	0	Historic record of possible archaeological interest with no corresponding geophysical anomaly
Total	673	10	

4.4.7 Furthermore, these anomalies can be classified by probable type, which can further aid in assigning archaeological potential and importance in **Table 8**.

Table 8 Types of anomaly identified.

ANOMALY CLASSIFICATION	DEFINITION	NUMBER OF ANOMALIES IN EXPORT CABLE ROUTE	NUMBER OF ANOMALIES IN OCP
Wreck	Areas of coherent structure including wrecks of ships, submarines and some aircraft (where coherent structure survives)	1	0
Debris Field	A discrete area containing numerous individual debris items that are potentially anthropogenic, and can include dispersed wreck sites for which no coherent structure remains	6	0
Debris	Distinct objects on the seabed, generally exhibiting height or with evidence of structure, that are potentially anthropogenic in origin	49	1

ANOMALY CLASSIFICATION	DEFINITION	NUMBER OF ANOMALIES IN EXPORT CABLE ROUTE	NUMBER OF ANOMALIES IN OCP
Seabed disturbance	An area of disturbance without individual, distinct objects. Potentially indicates wreck debris or other anthropogenic features buried just below the seabed.	11	1
Rope/chain	Curvilinear dark reflectors, often with a small amount of height, indicating rope or chain (if ferrous)	3	0
Dark reflector	Individual objects or areas of high reflectivity, displaying some anthropogenic characteristics. Precise nature is uncertain	99	0
Mound	A mounded feature with height not considered to be natural. Mounds may form over wreck sites or other debris.	15	0
Magnetic	No associated seabed surface expression, and have the potential to represent possible buried ferrous debris or buried wreck sites	482	8
Recorded wreck	Position of a recorded wreck at which previous surveys have identified definite seabed anomalies, but for which no associated feature has been identified within the current data set.	1	0
Recorded obstruction	Position of a recorded obstruction (e.g. foul ground, fisherman's fastener recorded by the UKHO), but for which no associated feature has been identified within the current data set	6	0
Total		673	10

EXPORT CABLE ROUTE GEOPHYSICAL STUDY AREA ANOMALIES

A1 Anomalies

- 4.4.8 One wreck, **70657**, has been identified within the geophysical data of the export cable route (**Figure: Sheet 1**). This has been identified during previous phases of work and is recorded by the UKHO as the wreck of the HMS *Ruthin Castle*, an armed trawler which was lost in 1917 after striking a mine off Skinningrove, North Yorkshire (UKHO ID 6058). This wreck is classified as a dangerous wreck that lies within the 1 km blue-line boundary.
- 4.4.9 The wreck is visible in the SSS data as a north-south trending irregular area of debris, measuring 1.9 x 7.5 x 3.5 m, and is associated with a very large (50579 nT) magnetic anomaly. A single distinct large dark reflector with height towards the southern edge has

been interpreted from the MBES data as a possible intact boiler. The wreck appears very broken up with little structure remaining, which correlates with the known state of the vessel from dive records (UKHO 6058).

- 4.4.10 The main wreck structure (**70657**) has been identified during previous assessments, but some additional potentially associated debris (**7955**, **7956**, **7336** and **7337**) have been identified within the most recent data, situated within 50 m of the main wreck.
- 4.4.11 Anomaly **7956** is a relatively poorly defined area of irregular dark reflectors with shadows, including some possible short linear features, measuring 24.0 x 13.3 x 0.7 m. The features are generally relatively low lying, apart from a single larger upstanding dark reflector, and it is not easily visible in the MBES data. No definite Mag. anomaly has been associated with the feature, although any anomaly would be masked by the signal from **70657**.
- 4.4.12 Anomaly **7956** is located approximately 30 m to the south of the wreck of the HMS *Ruthin Castle*, and is potentially an associated and previously unidentified debris field. Diver records from the wreck (UKHO 6058) suggest the section forward of the boiler is badly degraded, and this debris field may represent part of the forward section of the vessel. However, visual inspection would be needed to confirm this. As potential wreck debris, **7956** has been assigned an A1 archaeological potential rating.
- 4.4.13 Anomaly **7955** is a small linear mound located 10 m SSE from **70657**. It is irregular in profile and orientated in opposition to the surrounding seabed features, and measures 5.4 x 1.3 x 0.8 m. The feature doesn't have a definitely associated Mag. anomaly, although any anomaly would be masked by the signal from the nearby wreck. This has been interpreted as probable associated wreck debris, and as such has been assigned an A1 archaeological potential rating.
- 4.4.14 Anomalies **7336** and **7337** are located further from the wreck than **7955** (approximately 25 m and 30 m respectively), and their interpretation is less certain. These are irregular dark reflectors, with shadows, measuring 2.8 x 1.0 x 0.3 m and 3.9 x 0.9 x 0.4 m respectively, without a definitely associated Mag. anomaly, although again any anomaly would be masked by the signal from the wreck. These have been classified as dark reflectors and could be debris or natural features. As such, they have been assigned an A2 archaeological potential rating. Visual inspection investigations would need to be undertaken to determine whether they are related wreck debris.
- 4.4.15 One further feature of high archaeological potential has been identified within the data of the export cable route. Anomaly **7363** is a distinct circular dark reflector which appears partly hollow, possibly with a central feature, measuring 2.0 x 1.8 x 1.5 m. In the SSS data, this casts an irregularly slanted bright shadow and a longer narrow shadow from the centre (**Figure 3**). It is also visible as a very large (8322 nT), distinct magnetic dipole within the Mag. data.
- 4.4.16 This is possibly a significant piece of ferrous debris and could be of archaeological potential or a modern anthropogenic object such as a buoy tether. Anomaly **7363** has been assigned an A1 archaeological potential rating based on the large amplitude of the associated Mag. anomaly and the significant height of the feature.

A3 Anomalies

- 4.4.17 One recorded wreck, **7954**, has been identified within the export cable route geophysical study area. This is the recorded location of the wreck of an unidentified steam trawler, first discovered in 1989 (UKHO ID 6398). The wreck was last surveyed in 2017, and found to be orientated approximately north-south with dimensions measuring 61.0 x 13.8 x 6.4 m.

- 4.4.18 The wreck has not been identified within the current geophysical data, as an area of MBES data over the location is missing from the data provided to Wessex Archaeology. Subsequent conversations with Fugro confirm a data export error removed the data points from this location, and that the wreck is present at the location. The wreck site is located at the edge of the survey area and as such was not directly covered by either SSS or Mag. data, so further comment on the status of the wreck cannot be made by Wessex Archaeology at this time. However, as the UKHO record a previous survey undertaken in 2017, it is expected that the information present within the UKHO record is accurate (UKHO 6398).
- 4.4.19 As it was not assessed by Wessex Archaeology, **7954** has been assigned an A3 archaeological rating, although it is known to be present at the recorded location.
- 4.4.20 A total of six recorded obstructions (**70841**, **70842**, **70849**, **70850**, **70856**, and **70857**) have also been identified within the export cable route geophysical study area. These are all fishermen's fasteners identified within the Historic Environment Record during previous phases of work (Wessex Archaeology 2014), and no geophysical anomalies have been identified at these locations. None of the obstructions are recorded by the UKHO. As historic records, these have been retained within the gazetteer with A3 archaeological potential ratings as a precaution.

A2 Anomalies

- 4.4.21 The remaining identified anomalies within the export cable route geophysical study area have all been assigned an A2 archaeological potential rating. Five anomalies (in addition to **7956**) have been interpreted as debris fields. Of these, one (**7578**) has been associated with a 40 nT magnetic anomaly, indicating the presence of ferrous debris, whilst four (**7527**, **7670**, **7867**, and **70801**) represent possible non-ferrous debris.
- 4.4.22 Anomaly **7527** has been reported previously (Wessex Archaeology 2020a), and is a linear ridge identified in the MBES data, trending approximately NNW-SSE across the centre of the geophysical study area, and measuring 30.7 x 5.5 x 0.3 m. Within the SSS data, it is visible as an elongate area of possible disturbance, with distinct dark reflectors with shadows at both ends (**Figure 4**). No magnetic anomaly has been associated with the feature, but it is located in an extensive area of featureless seabed and is unlikely to be a natural feature.
- 4.4.23 This feature is interpreted as probable partially buried non-ferrous debris of unknown origin. It is not associated with any recorded wrecks or obstructions and has not been identified during previous surveys over the area, suggesting it is either periodically completely buried or recently deposited.
- 4.4.24 Only one of the debris field features, **70801**, has been identified during previous phases of work. The additional anomalies have been newly identified within the most recent geophysical data.
- 4.4.25 A total of 47 individual pieces of debris (in addition to **7955** and **7363**, (see **Appendix C** for full list) have been identified in the export cable route geophysical study area. These range in size from 0.7 x 0.9 x 0.0 m (**7520**) to 68.0 x 0.5 x 0.1 m (**7332**) in size, and 22 have been associated with magnetic anomalies, ranging from 3 nT (**70667**) to 549 nT (**7421**), suggesting ferrous debris.
- 4.4.26 Of particular potential interest are **7332**, **7334**, **7565** (previously reported, Wessex Archaeology 2020a), **7576**, and **7591**, which are long, linear features, often joining a linear alignment of dark reflectors with shadows (**Figure 5**). These are potentially modern fishing gear but have the potential to be areas of UXO based on the knowledge of historic minefields in the area.

- 4.4.27 Of the identified pieces of debris, only six (**70667**, **70685**, **70688**, **70690**, **70711**, and **70817**) have been identified during previous phases of work; the additional anomalies have been newly identified within the most recent geophysical data.
- 4.4.28 A total of three potential lengths of rope or chain (**7654**, **7655**, and **7537**) have been identified within the export cable route geophysical study area. These anomalies range from 49.7 x 0.6 x 0.0 m (**7655**) to 58.4 x 0.4 x 0.1 m (**7537**) in size, and are characterised as curvilinear dark reflectors, generally without shadow or associated Mag. anomalies. Anomalies **7654** and **7655** may represent exposures of the same partially buried feature, but this is uncertain from the data. None of these anomalies were identified during previous phases of work.
- 4.4.29 A total of 11 anomalies (see **Appendix C** for full list) have been interpreted as areas of seabed disturbance within the export cable route geophysical study area. These are characterised as generally irregular areas of poorly defined dark and/or bright reflectors and range from 2.2 x 0.5 x 0.2 m (**7543**) to 24.4 x 16.9 x 0.6 m (**7835**) in size. One of the anomalies, **7835**, has been associated with a 27 nT Mag. anomaly, suggesting the presence of some ferrous material.
- 4.4.30 These are all of uncertain origin and may represent natural features or debris buried just below the surface. In the case of **7835**, the Mag. anomaly may represent rocks with a high ferrous content. Of these anomalies, only two (**70653** and **70819**) were identified during previous phases of work; the additional anomalies have been newly identified within the most recent geophysical data.
- 4.4.31 A total of 15 anomalies within the export cable route geophysical study area (see **Appendix C** for full list) have been interpreted as mounds. These have generally been primarily identified within the MBES data set and range from 1.5 x 1.3 x 0.8 m (**7672**) to 15.1 x 10.9 x 1.0 m (**70669**) in size. These mounds are of uncertain origin, and potentially indicate buried debris at these locations or natural seabed features.
- 4.4.32 Of the identified mounds, four (**7311**, **7729**, **7775**, and **70669**) have been associated with Mag. anomalies, ranging from 8 nT (**7775**) to 75 nT (**7729**) in amplitude, suggesting either ferrous debris or natural features with a high ferrous mineral content. Only two of these anomalies, 70669 and 70692, have been identified during previous phases of work; the additional anomalies have been newly identified within the most recent geophysical data.
- 4.4.33 A total of 97 anomalies (in addition to **7336** and **7337**, see **Appendix C** for full list) have been interpreted as dark reflectors within the export cable route geophysical study area. These range in size from 0.7 x 0.4 x 0.4 m (**7612**) to 9.5 x 2.4 x 0.7 m (**70665**) and are generally isolated features of unknown and uncertain origin. Four of these anomalies (**7577**, **7592**, **7736**, and **70656**) have been associated with Mag. anomalies, ranging from 12 nT (**70656**) to 44 nT (**7592**) in amplitude.
- 4.4.34 These anomalies could either be individual pieces of debris or natural features. A total of eight of these anomalies were identified during previous phases of work; the additional anomalies have been newly identified within the most recent geophysical data.
- 4.4.35 The remaining 482 anomalies within the export cable route geophysical study area (see **Appendix C** for full list) are solely magnetic in nature, without any associated SSS or MBES contacts. These range from 5 nT (**7515**, **7685**, **7708**, **70689**, and **70694**) to 1044 nT (**7427**) in amplitude and indicate potential ferrous debris that is either buried or without surface expression. Five of the identified anomalies (**7331**, **7384**, **7427**, **7623**, and **7624**) have amplitudes in excess of 500 nT, suggesting significant pieces of ferrous debris at these locations.

- 4.4.36 Of these magnetic anomalies, a total of only 12 were identified during previous phases of work. The additional anomalies have been newly identified within the most recent geophysical data, particularly in areas covered by gradiometer data and within the nearshore area.

OCP STUDY AREA ANOMALIES

- 4.4.37 No anomalies of high archaeological potential (A1) have been identified within the OCP study area.
- 4.4.38 A total of 10 anomalies have been identified as being of uncertain origin of possible archaeological interest (A2) within the OCP study area. These consist of debris (**7041**), seabed disturbance (**7047**) and eight magnetic anomalies (**7040**, **7042-7046**, **7170**, **7648**).
- 4.4.39 These totals include three anomalies (**7042**, **7044**, and **7648**) that are present within both the export cable geophysical study area and OCP study areas.
- 4.4.40 One anomaly (**7041**) has been classified as debris. This is a short, linear dark reflector with a small but distinct shadow, measuring 4.2 x 0.9 x 0.2 m. No Mag. anomaly has been associated with the anomaly, so it is potentially non-ferrous in nature.
- 4.4.41 One anomaly (**7047**) has been classified as an area of seabed disturbance. This is characterised as a shallow, east-west trending depression, approximately 17.7 x 9.9 x 0.2 m in size, contain numerous small dark reflectors and two short, parallel linear ridges. No Mag. anomaly has been associated with this feature, and it could indicate partially buried non-ferrous debris or be a natural exposure of the underlying geology.
- 4.4.42 The remaining eight anomalies (**7040**, **7042**, **7043**, **7044**, **7045**, **7046**, **7170**, and **7648**) are solely magnetic in nature, without any associated SSS or MBES contacts. These range from 6 nT (**7046**) to 106 nT (**7044**) in amplitude and indicate possible ferrous debris that is either buried or without surface expression.
- 4.4.43 No recorded wrecks or obstructions have been identified in the UKHO database from within the OCP study area.

4.5 OVERVIEW OF ARCHAEOLOGICAL POTENTIAL

SUBMERGED PREHISTORIC POTENTIAL

- 4.5.1 There are no known seabed prehistoric sites within the study area. However, the palaeogeographic assessment of the geophysical data has demonstrated the potential for the presence of as yet undiscovered *in situ* prehistoric sites and finds.
- 4.5.2 The values of these potential sites and features are detailed in **Section 5.2** below.

MARITIME ARCHAEOLOGICAL POTENTIAL

- 4.5.3 The assessment of potential for the discovery of shipwreck and shipwreck-derived material within the study area draws on the results of the geophysical survey and desk-based research combined with further research of the wider area.

- 4.5.4 There is potential for further discoveries of maritime craft from the Mesolithic to the modern period. Post-medieval and modern wrecks, as they were generally made of more substantial material, are more likely to have been discovered through surveys undertaken by UKHO and others, and thus recorded in the archaeological record. However, there is still potential for discovery of previously unrecorded wreck sites, particularly of wooden wrecks, broken up wrecks or partially buried wrecks that are more difficult to detect through geophysical survey.
- 4.5.5 There is also potential for 20th century aircraft, particularly in relation to Second World War. Aircraft crash sites are also difficult to identify through archaeological assessments of geophysical survey, although past experience indicates material from the seabed, such as engines or other material may be recorded as small obstructions or anomalies.
- 4.5.6 A small number of 19th century and early 20th century steamships are included as recorded losses for the study area, therefore material associated with these has the potential to be discovered. These have been discussed further above in **section 5.3**.
- 4.5.7 The key areas of potential are summarised in **Table 9** below.

Table 9 Summary of key areas of maritime potential.

PERIOD	SUMMARY
Pre-1500 AD	Low potential for material associated with prehistoric maritime activities. Prehistoric maritime activities include coastal travel, fishing and the exploitation of other marine and coastal resources. Vessels of this period include rafts, hide covered watercraft and log boats.
	Low potential for material associated with later prehistoric maritime activities, including seaworthy watercraft suitable for overseas voyages to facilitate trade and the exploitation of deep water resources. Such remains are likely to comprise larger boat types, including those representing new technologies such as the Bronze Age sewn plank boats which are associated with a growing scale of seafaring activities.
	Low potential for material of Romano-British date, associated with the expansion and diversification of trade with the Continent. Watercraft of this period, where present, may be representative of a distinct shipbuilding tradition known as 'Romano-Celtic' shipbuilding, often considered to represent a fusion of Roman and northern European methods.
	Low potential for material associated with coastal and seafaring activity in the 'Dark Ages', associated with the renewed expansion of trade routes and Germanic and Norse invasion and migration. Vessels of this period may be representative of new shipbuilding traditions such as the technique.
	Low potential for material associated with medieval maritime activity, including that associated with increasing trade between the UK and Europe, the development of established ports around the southern North Sea and the expansion of fishing fleets and the herring industry. Vessels of this period are representative of a shipbuilding industry which encompassed a wide range of vessel types (comprising both larger ships and vernacular boats). Such wrecks may also be representative of new technologies (e.g. the use of flush-laid strakes in construction), developments in propulsion, the development of reliable navigation techniques and the use of ordnance.

PERIOD	SUMMARY
1500 to 1815	Medium potential for post-medieval shipwrecks representative of continuing technological advances in the construction, fitting and arming of ships, and in navigation, sailing and steering techniques. Vessels of this period continued to variously represent both the clinker techniques and construction utilising the flush-laid strakes technique.
	Medium potential for post-medieval shipwrecks associated with the expansion of transoceanic communications and the opening up of the New World.
	Medium potential for post-medieval shipwrecks associated with the establishment of the Royal Navy during the Tudor period and the increasing scale of battles at sea.
	Medium potential for post-medieval shipwrecks associated with continuing local trade and marine exploitation including the transport of goods associated with the agricultural revolution.
1816 to 1913	Higher potential for the discovery of shipwrecks associated with the introduction of iron and later steel in shipbuilding techniques. Such vessels may also be representative of other fundamental changes associated with the industrial revolution, particularly with regards to propulsion and the emergence of steam propulsion and the increasing use of paddle and screw propelled vessels.
	Higher potential for the discovery of shipwrecks demonstrating a diverse array of vernacular boat types evolved for use in specific environments.
	Higher potential for wrecks associated with large scale worldwide trade, the fishing industry or coastal maritime activity including marine exploitation.
1914 to 1945	Higher potential for the discovery of shipwrecks associated with the two world wars including both naval vessels and merchant ships. Wrecks of this period may also be associated with the increased shipping responding to the demand to fulfil military requirements. A large number of vessels dating to this period were lost as a result of enemy action.
Post- 1946	Potential for wrecks associated with a wide range of maritime activities, including military, commerce, fishing and leisure. Although ships and boats of this period are more numerous, losses decline due to increased safety coupled with the absence of any major hostilities. Vessels dating to this period are predominantly lost as a result of any number of isolated or interrelated factors including human error, adverse weather conditions, collision with other vessels or navigational hazards or mechanical faults.

NAVIGATIONAL HAZARDS

- 4.5.8 A project entitled Enhancing our Understanding: Mapping Navigational Hazards as areas of Maritime Archaeological Potential, undertaken by Bournemouth University (Merritt *et al.* 2007) assessed historical records of navigational hazards to interpret and characterise the marine historic environment. Areas assessed to be hazardous were considered alongside a model of the preservation potential of marine sediments with the purpose of identifying areas where there was not only a high potential for ship losses, but where there was also a high potential for the preservation of archaeological remains. These areas were coined as Areas of Maritime Archaeological Potential (AMAPs).

- 4.5.9 The OFTO truncates two AMAPs: the offshore area Dogger Bank and the inshore and offshore area Southern North Sea. As these areas have both been selected as AMAPs the potential for maritime archaeological material pertaining to shipwrecks is particularly high here.
- 4.5.10 The coastal section of the study area consists of a sandy beach which is primarily used as a leisure spot and therefore does not indicate any heightened potential for shipwreck material related to shipping or fishing activities.

RECORDED LOSSES

- 4.5.11 As discussed in **Section 3.2**, Recorded Losses are records for ships or aircraft that are known to have wrecked or crashed offshore, but for which the exact locations are not known.
- 4.5.12 Recorded Losses can be considered as an indication of the potential for archaeological maritime remains to exist within the study area and the type and number of wrecks that could be present. These records relate to vessels reportedly lost or for which no physical wreck remains have ever been identified. **Table 10** shows the distribution of these documented losses according to the date of loss for those records whose position falls within the study area. Details regarding these losses are presented in **Appendix D**.

Table 10 Recorded Losses based on NRHE and HER data.

PERIOD	NUMBER OF LOSSES IN THE EXPORT CABLE ROUTE	NUMBER OF LOSSES IN THE OCP
1900 – present	2	N/A
Unknown	22	N/A

- 4.5.13 There are 24 recorded losses which may lie within the export cable route. Four of these reported losses listed by the UKHO are potential wrecked vessels. There is one unidentified wreck which was sunk in 1917. The possibility that nearby A2 anomalies could correspond with these wreck sites cannot be dismissed. The remaining features consist of obstructions, recorded as fishermen’s fasteners with a location as recorded ‘off the coast’.

AVIATION ARCHAEOLOGICAL POTENTIAL

- 4.5.14 The assessment of potential for the discovery of aircraft crash sites and aircraft derived material within the study area draws on the results of the geophysical survey and desk-based research combined with further research of the wider area.
- 4.5.15 There is one Recorded Loss of an aircraft crash site recorded within the export cable route (UKHO No. 6290), consisting of Royal Air Force Lightning F6 XR 760¹ which crashed in 1986

¹ XR 760 is the serial number of the aircraft, and not the aircraft type.

and is assumed to have broken up on impact. Although there are no charted aircraft crash sites, there is potential for the discovery of previously unknown aircraft material.

- 4.5.16 There is potential for further discovery of the presence of aviation material dating from the early 20th century until more recent times, with a concentration dating to the World Wars and in particular to the Second World War (Wessex Archaeology 2008a). Discoveries may occur anywhere within the study area.
- 4.5.17 The key areas of aviation potential that may be uncovered within the study area are summarised in **Table 11**.

Table 11 Summary of key areas of aviation potential.

PERIOD	SUMMARY
Pre- 1939	Minimum potential for material associated with the early development of aircraft. Aircraft of this period may represent early construction techniques (e.g. those constructed of canvas covered wooden frames) or may be associated with the mass-production of fixed wing aircraft in large numbers during WWI.
	Minimum potential for material associated with the development of civil aviation during the 1920s and 1930s, associated with the expansion of civilian flight from the UK to a number of European and worldwide destinations.
1939 to 1945	Very high potential for WWII aviation remains, particularly as the east coast acted as a hub for hostile activity. Aircraft of this period are likely to be representative of technological innovations propelled by the necessities of war which extended the reliability and range of aircraft. This potential is signified by the 21 aircraft Recorded Losses outlined above.
Post- 1945	Potential for aviation remains associated with military activities dominated by the Cold War, the evolution of commercial travel and recreational flying and the intensification of offshore industry (including helicopter remains). Aircraft of this period may be representative of advances in aerospace engineering and the development of the jet engine

5. VALUE AND SENSITIVITY

5.1 INTRODUCTION

- 5.1.1 In order to assess the potential impacts of the Project upon archaeological and cultural heritage assets, the methods detailed in **Section 3.4** will be applied. Sensitivity of an asset to impacts is gauged on adaptability, tolerance, recoverability, and value, but archaeological assets cannot typically adapt, tolerate or recover from physical impacts, and so sensitivity is predominantly quantified only by value.
- 5.1.2 The perceived value of each marine archaeological asset is generally assessed and assigned on a site-by-site basis, depending on the criteria listed in **Table 6**.

5.2 SEABED PREHISTORY

- 5.2.1 There are no known seabed prehistory sites within the study area. However, the palaeogeographic assessment of the geophysical data has demonstrated the potential for the presence of as yet undiscovered *in situ* prehistoric sites and finds.
- 5.2.2 A comprehensive seabed prehistory assessment will be submitted separately as *Sofia Offshore Wind Farm – Export Cable Corridor: Stage 1 & 2 geoarchaeological assessment of geotechnical data* and will supersede the information provided below.
- 5.2.3 The values assigned to any potential heritage assets are outlined in **Table 12**.

Table 12 Value of seabed prehistory heritage assets.

ASSET TYPE	DEFINITION	VALUE
Potential <i>in situ</i> prehistoric sites	Primary context features and associated artefacts and their physical setting (if found).	High
	Known submerged prehistoric sites and landscape features with the demonstrable potential to include artefactual material.	High
Potential submerged landscape features	Other known submerged palaeolandscapes features and deposits likely to date to periods of prehistoric archaeological interest with the potential to contain <i>in situ</i> material.	High
Potential derived prehistoric finds	Isolated discoveries of prehistoric archaeological material discovered within secondary contexts.	Medium
Potential	Isolated examples of palaeoenvironmental material	Low

ASSET TYPE		DEFINITION	VALUE
palaeoenvironmental evidence	Palaeoenvironmental material associated with specific palaeolandscape features or archaeological material		High

- 5.2.4 On the basis of age and the rarity of Palaeolithic and Mesolithic finds underwater, if any sites or material was discovered, it would likely be of high, probably national archaeological importance. A guidance note published by English Heritage Identifying and Protecting Palaeolithic Remains: archaeological guidance for planning authorities and developers (1998) indicated that sites containing Palaeolithic features are so rare in Britain that they should be regarded as of **national importance** and wherever possible should remain undisturbed.
- 5.2.5 In the event that prehistoric archaeological material discovered offshore is found *in situ* it should be considered of particularly high archaeological importance (Bailey *et al.* 2020). As such, the features and deposits that have the potential to contain within them *in situ* material should be considered as **high value** assets.
- 5.2.6 Prehistoric archaeological material discovered within secondary contexts also has the potential to provide valuable information on patterns of human land use and demography in a field of study that is still little understood and rapidly evolving (Hosfield *et al.* 2007). They are, however, by their very nature derived and, as such, isolated prehistoric finds should be regarded as **medium value** assets.
- 5.2.7 Palaeoenvironmental evidence in the context of an *in situ* prehistoric site (if found) will be of high value. More widely, palaeolandscapes and palaeolandscape features will be considered of high value for the purpose of this assessment owing to the Quaternary scientific potential of such sedimentary sequences, to contextualise the wider early prehistoric palaeogeography and the potential of palaeolandscape features to preserve *in situ* artefacts and sites (Bicket and Tizzard 2015). Palaeoenvironmental evidence from isolated contexts will be regarded as **low value**.

5.3 SEABED FEATURES: MARITIME

- 5.3.1 There are no wrecks with statutory designations within the study area.
- 5.3.2 There is 1 wreck site and 3 features within the export cable route geophysical study area which are judged to be of anthropogenic origin of archaeological interest and therefore classed as A1. These are considered as **high value** assets.
- 5.3.3 The interpretation of many A2 anomalies has been made from the available information but without visual inspection of each individual feature; all A2 anomalies are considered to potentially have archaeological value, to a greater or lesser degree and, in accordance with the precautionary principle, are considered as **high value** assets.
- 5.3.4 A further 7 sites within the export cable route geophysical study area have been discriminated as A3 anomalies; historic records of possible archaeological interest with no geophysical anomaly. As the value of potential wrecks cannot be evaluated until they are discovered, potential wrecks of all periods should be expected to be of **high value**.

5.4 SEABED FEATURES: AVIATION

- 5.4.1 There are no known aircraft crash sites within the study area. Nonetheless, there is the potential for aircraft or aircraft related debris to exist on the seafloor within the study area. Any aircraft remains that may be discovered in the study area, particularly relating to the Second World War, would likely be protected under PMRA 1986 and therefore would be of **high value**.

6. POTENTIAL IMPACTS AND RECOMMENDATIONS

6.1 POTENTIAL IMPACTS

- 6.1.1 This impact assessment refers to guidance developed for the Offshore Renewable Energy sector (COWRIE 2007; 2011). The assessment has also been based on professional archaeological judgement and best practice that has been applied to other consented cable routes.
- 6.1.2 Offshore developments can affect heritage assets in two ways:
- ✦ from the direct effect of the physical siting of the project; and
 - ✦ from indirect changes to the physical marine environment.
- 6.1.3 Impacts to heritage assets and their historic environment occur as a result of changes to their physical environment in terms of loss and/or degradation, which can subsequently reduce the significance of a heritage asset and its wider historic environment. The management and mitigation of such change is based on the principle that archaeological assets are finite, non-renewable and cannot adapt, tolerate or recover from direct impacts.
- 6.1.4 Heritage assets may be buried within seabed sediments or may rest upon the seafloor, either with or without height. As such, direct impacts to such assets can occur during any development or related activity that makes contact with the seafloor or cuts through seabed deposits. Heritage assets with height, such as wrecks, may also be impacted by development or activities that occur within the water column.
- 6.1.5 The implementation of the marine element of the project is anticipated to entail the following sources of ground disturbance:
- ✦ Seabed preparation prior to substructure installation and cable laying;
 - ✦ Survey and clearance of unexploded ordnance (UXO) and boulders;
 - ✦ Laying of export cables (methods include ploughing, jet trenching, dredging, mass flow excavation and / or mechanical trenching);
 - ✦ Backfilling of cable trenches and protection/stabilisation of surface laid marine cables (options include rock placement, concrete/frond mattresses, or uraduct);
 - ✦ Scour associated with the disturbances listed above; and
 - ✦ Seabed contact by legs of jack-up vessels and/or anchors on vessels associated with the installation, maintenance and decommissioning phases of the Project.
- 6.1.6 The activities listed above may result in impacts that have potential direct and/or indirect effects on marine archaeological heritage assets. The activities and anticipated effects are summarised as follows (**Table 13**):

Table 13 Impact types and potential effects on marine archaeological heritage assets.

ACTIVITY	ANTICIPATED EFFECTS ON ARCHAEOLOGICAL ASSET	IMPACT TYPE
Seabed preparation	Direct damage/destruction to assets lying on the seafloor and buried within the shallower seabed sediments	Direct
UXO survey and clearance	Direct damage to assets located within close proximity to UXO	Direct
Installation of substructure and placing of scour protection	Direct damage/destruction to assets lying on the seafloor and buried within the shallower seabed sediments.	Direct
Installation of ancillary infrastructure	Direct damage/destruction to assets lying on the seafloor and buried within the shallower seabed sediments.	Direct
Cable burial whereby seabed is truncated	Direct damage/destruction to assets, and / or their physical setting, lying on the seafloor and buried within the seabed sediments.	Direct
Cable laying on the seabed	Direct damage/destruction to assets lying on the seafloor.	Direct
Installation of cable protection (where burial is not possible)	Direct damage/destruction to assets, and / or their physical setting, lying on the seafloor and buried within the seabed sediments.	Direct
	Potential scour and plume effects resulting in increased protection to, or deterioration of, assets in the vicinity.	Indirect
Seabed contact by legs of jack-up vessels and/or anchors on vessels during installation, scheduled and unplanned maintenance works and decommissioning works.	Localised damage/destruction to assets, and/or their physical setting, lying on the seafloor and buried within the seabed sediments.	Direct
Deployment of large vessels during construction and decommissioning phases	Potential displacement of sediment either affording increased protection to, or deterioration of, assets in the vicinity.	Indirect
Changes to the hydrodynamic and sedimentary regimes due to spoil removal and distribution caused by installation of foundations and trenching operations.	Increased protection to, or deterioration of, assets resulting in a beneficial or adverse effect on assets in the vicinity.	Indirect
Changes to hydrodynamic and sedimentary regimes resulting from the removal of substructures and cables and associated scour protection as part of decommissioning works.	Increased protection to, or deterioration of, assets resulting in a beneficial or adverse effect on marine archaeological assets in the vicinity.	Indirect

6.2 RECOMMENDATIONS

- 6.2.1 Typically, adequate and appropriate mitigation is required to ensure that the archaeological value of the baseline within this report is maintained. Recommendations for appropriate mitigation are set out below and follow on from the embedded mitigation set out in the Offshore Archaeological WSI (Document reference: 003034372, Wessex Archaeology 2019).
- 6.2.2 The assessment of the geophysical data resulted in a total of 673 anomalies within the export cable route geophysical study area and 10 within the OCP study area identified as being of possible archaeological interest. These are summarised as follows:
- ✦ a total of 4 within the export cable route geophysical study area were assigned an A1 archaeological rating;
 - ✦ a total of 662 within the export cable route geophysical study area and 10 within the OCP study area were assigned an A2 archaeological rating;
 - ✦ 1 item, a recorded wreck, was assigned an A3 archaeological discrimination; and
 - ✦ 6 items, recorded obstructions, were also assigned A3 archaeological discriminations.

AVOIDANCE

- 6.2.3 The primary mitigation for the protection of known archaeological assets is avoidance. This is achieved through the implementation and monitoring of Archaeological Exclusion Zones (AEZs), which are proposed for identified high value seabed features of anthropogenic origin (i.e. A1 classified geophysical anomalies).
- 6.2.4 The mitigation will establish appropriately sized AEZs around assets which have been considered to be of high archaeological potential, as detailed within the Offshore Written Scheme of Investigation (Document reference: 003034372) as approved by Historic England. These areas would be out of bounds to construction activities and to anchoring. Monitoring of any AEZs to ensure there is no disturbance to them will be part of this mitigation. This report is intended to inform the decision-making process for confirming the final AEZs and micro siting.
- 6.2.5 Currently, two AEZs are in place that directly affect the study area from the previous Round 3 Zone assessment. These are around features **7954** and **70657** within the export cable route geophysical study area and are summarised in **Table 14** below. The AEZ around **70657** is currently 100 m around the central point. Based on the higher resolution data, it is recommended this is reduced to 50 m around the visible extents of the wreck.
- 6.2.6 A further AEZ was recommended around anomaly **7527** within the export cable route geophysical study area as part of the interim report. This is also summarised in **Table 14**.
- 6.2.7 In addition to these AEZs currently in place, a further three AEZs are recommended within the export cable route geophysical study area around interpreted A1 features based on the interpretation of the most recent geophysical data. These are to be placed around features **7955** and **7956**, due to their potential association with wreck **70657**, and **7363** due to its size and associated large magnetic amplitude. The total recommended AEZs for the geophysical study area are now as follows:

Table 14 Recommended AEZ's within the export cable route.

ID NUMBER	CLASSIFICATION	ORIGINAL ASSESSMENT	POSITION (WGS84 UTM31N)		STATUS	EXCLUSION ZONE
			Easting	Northing		
70657	Wreck	78041	249765	6058456	Retain – reduce based on extents from new data	50 m buffer around feature extent
7954	Recorded wreck	78041	260157	6059990	Retain unchanged	100 m buffer around position
7527	Debris field	211052	333539	6074034	Retain unchanged	25 m buffer around feature extent
7955	Debris	211052	249775	6058478	New	25 m buffer around position
7956	Debris field	211052	249765	6058456	New	50 m buffer around feature extent
7363	Debris	211052	241407	6058623	New	50 m buffer around position

- 6.2.8 No AEZs are recommended for any of the anomalies identified within the OCP study area.
- 6.2.9 For features assigned A2 archaeological discrimination rating, no AEZs are recommended at this time (with the exception of **7527**, above). However, avoidance of these features by micro-siting is recommended if they will be directly impacted by development in the future. If micro-siting is not possible, then further assessment to ascertain the nature of the features may be required.
- 6.2.10 It is recommended that if any objects of possible archaeological interest are recovered during any groundwork operations, that they should be reported using the established Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate 2014). This will establish whether the recovered objects are of archaeological interest and recommend appropriate mitigation measures.
- 6.2.11 Reduction of impact can be achieved by means of appropriate mitigation identified through potential opportunities for further investigation of assets (e.g. during UXO survey and clearance). Further investigations mean that anomalies can either have their archaeological value removed, if they prove to be of non-anthropogenic nature or modern, or their value as

archaeological assets confirmed. If their value is confirmed, mitigation in the form of either avoidance (which may be enacted by the implementation of an AEZ) or through remedying or offsetting measures as identified through a Written Scheme of Investigation (WSI) which includes a Protocol for Archaeological Discoveries.

REMEDYING AND OFFSETTING

- 6.2.12 In cases where avoidance is either inappropriate or impossible, the damage to archaeological assets should be offset. In the case of seabed prehistoric features, this can be achieved by undertaking a palaeoenvironmental assessment of deposits with high geoarchaeological potential, principally peat deposits. Pollen and macrofossil assessment, supported by radiocarbon dating, will provide information on age and vegetation history of the terrestrial environment, providing a landscape context to any prehistoric activity within the area. Recovery of artefacts and/or other archaeological assets should be a final resort, when all other mitigation has failed. Any recovery should be completed under the supervision of an appropriately qualified and experienced marine archaeologist. Recovery methods are identified through the WSI. Due to the vast differences in practice and implementation between these methods, each will be covered by a specific Method Statement, approved by the Archaeological Curator, should they be implemented.

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APPENDIX A. TERMINOLOGY

List of Acronyms

AC	Alternating Current
AD	<i>Anno Domini</i>
ADS	Archaeological Data Service
AEZ	Archaeological Exclusion Zone
ALSF	Aggregate Levy Sustainability Fund
BCE	Before Common Era
BGS	British Geological Survey
BH	Borehole
BP	Before Present
BULSI	Build, Use, Loss, Survival and Investigation
CES	Crown Estate Scotland
CifA	Chartered Institute for Archaeologists
COWRIE	Collaborative Offshore Wind Research into the Environment
CPT	Cone Penetrometer Test
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DCLG	Department for Communities and Local Government
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ES	Environmental Statement
GIS	Geographic Information System
HE	Historic England
HER	Historic Environment Record
HSC	Historic Seascape Characterisation
JCCC	Joint Casualty and Compassionate Centre
JNAPC	Joint Nautical Archaeology Policy Committee
MEDIN	Marine Environment Data and Information Network
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
MoD	Ministry of Defence
MoRPHE	Management of Research Projects in the Historic Environment

MPS	Marine Policy Statement
N/A	Not applicable (not included in dataset)
NM	Nautical Miles
NRHE	National Record of the Historic Environment
OFTO	Offshore Transmission Owner
O&M	Operation and Maintenance
ORPAD	Offshore Renewables Protocol for Archaeological Discoveries
OSP	Offshore Substation Platform
PAD	Protocol for Archaeological Discoveries
PEIR	Preliminary Environmental Information Report
ROV	Remotely Operated Vehicle
SOWFL	Sofia Offshore Windfarm Limited
TCE	The Crown Estate
UKHO	United Kingdom Hydrographic Office
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UTM	Universal Transverse Mercator
UXO	Unexploded Ordnance
WA	Wessex Archaeology
WGS	World Geodetic System
WSI	Written Scheme of Investigation

Glossary

- A.1 The terminology used in this assessment follows definitions contained within UK's National Planning Policy Framework (Department for Communities and Local Government, 2012: 50-57):

Archaeological interest	There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.
Conservation (for heritage policy)	The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.
Designated heritage assets	World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Park and Gardens, Registered Battlefields and Conservation Areas designated under the relevant legislation.

Heritage asset	A building monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).
Historic environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Historic environment record	Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.
Setting of a heritage asset	The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
Significance (for heritage policy)	The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
Value	An aspect of worth or importance.

Chronology

A.2 Where referred to in the text, the main archaeological periods are broadly defined by the following date ranges:

Prehistoric		Historic	
Palaeolithic	970,000–9500 BC	Romano-British	AD 43–410
Early Post-glacial	9500–8500 BC	Saxon	AD 410–1066
Mesolithic	8500–4000 BC	Medieval	AD 1066–1500
Neolithic	4000–2400 BC	Post-medieval	AD 1500–1800
Bronze Age	2400–700 BC	19th century	AD 1800–1899
Iron Age	700 BC–AD 43	Modern	1900–present day

APPENDIX B. LEGISLATION POLICY AND GUIDANCE

Global Policy and Legislation

Legislation/Policy	Summary
<p>The World Heritage Convention 1972</p>	<p>The Convention provides for the identification, protection, conservation and presentation of cultural and natural sites of ‘outstanding universal value’ for inscription on the World Heritage List. The Convention sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them. By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage. The 1972 UNESCO World Heritage Convention was ratified by the UK in 1984 and the UK currently has 29 World Heritage Sites.</p>
<p>The United Nations Convention on the Law of the Sea 1982</p>	<p>UNCLOS 1982 was ratified by the UK in 1997. Article 149 applies only to those archaeological and historical objects that lie outside national jurisdiction and stipulates that ‘all objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin’. Article 303 stipulates that ‘states have the duty to protect objects of an archaeological and historical nature found at sea and shall co-operate for this purpose’. Article 303 also provides for coastal states to exert a degree of control over the archaeological heritage to 24 nm, though the UK has not introduced any measures to implement this right.</p>
<p>International Council of Monuments and Sites Charter on the Protection and Management of Underwater Cultural Heritage 1996 (the Sofia Charter)</p>	<p>The Charter upon which the Annex of the UNESCO Convention is largely based includes a series of statements regarding best practice, intending ‘to ensure that all investigations are explicit in their aims, methodology and anticipated results so that the intention of each project is transparent to all’. The UK is a member of the International Council of Monuments and Sites.</p>
<p>UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001)</p>	<p>The UNESCO Convention was concluded in 2001, and is a comprehensive attempt to codify the law internationally with regards to underwater archaeological heritage. The UK abstained in the vote on the final draft of the Convention, however, it has stated that it has adopted the Annex of the Convention, which governs the conduct of archaeological investigations, as best practice for archaeology. Although the UK is not a signatory, the convention entered into force on 2nd January 2009 having been signed or ratified by 60 member states.</p>

European Policy and Legislation

Legislation/Policy	Summary
The European Convention on the Protection of the Archaeological Heritage (Revised) 1992 (The Valletta Convention)	<p>The Articles of the Valletta Convention tackle various aspects. Article 1 deals with the inventoring and protection of sites and areas; Article 2 deals with the mandatory reporting of chance finds and providing for 'archaeological reserves' on land or underwater; Article 3 promotes high standards for all archaeological work undertaken by suitably qualified people; Article 4 requires the conservation of excavated sites and the safe-keeping of finds; and Article 5 is concerned with consultation that should take place between planning authorities and developers to avoid damage to archaeological remains.</p> <p>The Valletta Convention was ratified by the UK Government in 2000 and came into force in 2001. The convention binds the UK to implement protective measures for the archaeological heritage within the jurisdiction of each party, including sea areas. Insofar as the UK exerts jurisdiction over the Continental Shelf, then it would appear that the provisions of the Valletta Convention apply to that jurisdiction.</p>
The European Landscape Convention 2000	<p>The European Landscape Convention became binding on the UK from 1 March 2007. Its principal clauses require the Government to protect and manage landscapes and to integrate landscape into regional and town planning policies including its cultural, environmental, agricultural, social and economic policies. The Convention applies to the entire territory of the UK and includes land, inland water and marine areas. It is not regarded as applying to sea areas regulated by the UK that lie beyond territorial waters.</p>
European Directives for Environmental Impact Assessments (2014/52/EU)	<p>The EIA Directive entered into force on 15 May 2014 to simplify the rules for assessing the potential effects of projects on the environment. The newly amended directive replaces former directives (85/337/EEC; 97/11/EC; 2003/35/EC; 2009/31/EC; 2011/92/EU) and Member States applied these in May 2017.</p>

United Kingdom Policy and Legislation

Legislation/Policy	Summary
Ancient Monuments and Archaeological Areas Act 1979 (as amended)	<p>Scheduled Monuments and Archaeological Areas of Importance (AAIs or their equivalent) are afforded statutory protection and the consent of Secretary of State (DCMS), as advised by Historic England, is required for any works. This Act is primarily used to protect terrestrial site, but has also been used to protect underwater sites.</p>
Protection of Wrecks Act 1973: Section Two	<p>This provides protection for wrecks that have been designated as dangerous due to their contents and is administered by the Maritime and Coastguard Agency through the Receiver of Wreck.</p>

Legislation/Policy	Summary
<p>Protection of Military Remains Act 1986</p>	<p>Under the Protection of Military Remains Act 1986, all aircraft that have crashed whilst in military service are automatically protected. Maritime vessels (e.g. ships and boats) lost during military service are not automatically protected, although the Ministry of Defence (MoD) has powers to protect any vessel that was in military service when lost. The MoD can designate wrecks whose position is known as ‘controlled sites’ and can designate named vessels whose location is unknown ‘protected places’. It is not necessary to demonstrate the presence of human remains for wrecks to be designated as either ‘controlled sites’ or ‘protected places’.</p>
<p>Merchant Shipping Act 1995</p>	<p>This Act sets out the procedures for determining the ownership of underwater finds classified as ‘wreck’; defined as any flotsam, jetsam, derelict and lagan found in or on the shores of the sea or any tidal water. It includes ship, aircraft, hovercraft, parts of these, their cargo or equipment. If any such finds are brought ashore, the salvor is required to give notice to the Receiver of Wreck that he/she has found or taken possession of them and, as directed by the Receiver, either hold them pending the Receiver’s order or deliver them to the Receiver.</p> <p>The Act is administered by the Maritime and Coastguard Agency. Beyond the 12 nm limit, the Merchant Shipping Act 1995 covers wreck found or taken into possession outside UK waters, and stipulates that if brought into UK waters, finds must be reported to the Receiver of Wreck. The provisions of the Protection of Military Remains Act 1986 regarding Controlled Sites are applicable in international waters, though they are only enforceable with respect to British-controlled ships, British citizens and British companies.</p>
<p>Marine and Coastal Access Act 2009</p>	<p>Under this Act the UK was divided into marine planning regions with an associated plan authority responsible for preparing a marine plan for that area.</p>
<p>National Planning Policy Framework 2012</p>	<p>The National Planning Policy Framework is a key part of reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth. A core planning principle is to, “conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations”. A draft revision of the policy framework was released on 24 July, 2018.</p> <p>A summary of the key paragraphs are included below.</p> <ul style="list-style-type: none"> • Paragraph 189. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic

Legislation/Policy	Summary
	<p>environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk based assessment and, where necessary, a field evaluation.</p> <ul style="list-style-type: none"> • Paragraph 190. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal. • Paragraph 193. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be. • Paragraph 197. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset. • Paragraph 199. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably. • Paragraph 200. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible.

Legislation/Policy	Summary
Overarching National Policy Statement for Energy (EN-1) (Department of Energy and Climate Change 2011a)	This National Policy Statement (NPS) sets out national policy for energy infrastructure, and the importance of archaeological assessment in the development process.
National Policy Statement for Renewable Energy Infrastructure (EN-3) (Department of Energy and Climate Change 2011b)	This NPS, taken together with the overarching NPS (EN-1), provides the primary basis for decisions by the Planning Inspectorate on renewable energy infrastructure development applications. It sets out the importance of the historic environment and the ways it can be impacted by development, outlines guidance for application assessments, Planning Inspectorate decision making and mitigation measures.
National Policy Statement for Electricity Networks Infrastructure (EN-5) (Department of Energy and Climate Change 2011c)	This NPS, taken together with the overarching NPS (EN-1) provides for decision making on above ground electricity lines of 132kV and over and other electricity networks associated with a Nationally Significant Infrastructure Project e.g. substations and converted stations.
Marine Policy Statement 2011	The Marine Policy Statement was jointly published by all UK Administrations in March 2011 as part of a new system of marine planning being introduced across UK seas.

Professional Guidance

Code of Practice for Seabed Developers, Joint Nautical Archaeology Policy Committee (Joint Nautical Archaeology Policy Committee 2006)	This voluntary Code provides a framework for seabed developers similar to the principles found in current policy and practice on land. The aim of the Code is to ensure a best practice model for seabed development. The Code offers guidance to developers on issues such as risk management and legislative implications.
Standard and guidance for historic environment desk-based assessment (Chartered Institute for Archaeologists 2014, updated 2017)	This guidance seeks to define good practice for the execution and reporting of desk-based assessment, in line with the by-laws of the Chartered Institute for Archaeologists. The standard and guidance was formally adopted as approved practice at the Annual General Meeting of the Institute held on 14 October 1994. This revision recognises the new Chartered status of the Institute.

APPENDIX C. SEABED ANOMALIES OF ARCHAEOLOGICAL POTENTIAL

OCP Area

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7040	Magnetic	451781	6095046	A2	-	-	-	12	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contact. Possible small piece of buried ferrous debris.	Mag.	Array 2020	OCP	-
7041	Debris	452279	6095643	A2	4.2	0.9	0.2	-	Short, linear dark reflector with small but distinct shadows at either end. Located in an area of generally featureless seabed. No associated Mag. anomaly. Possible non-ferrous debris.	SSS	Array 2020	OCP	-
7042	Magnetic	452259	6094366	A2	-	-	-	12	Small but distinct magnetic dipole identified on one survey line, but on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	Array 2020, OFTO 2020	Block G/OCP	-
7043	Magnetic	452494	6094120	A2	-	-	-	27	Medium positive magnetic monopole identified on one survey line. No associated SSS or MBES contacts. Possible small piece of buried ferrous debris.	Mag.	Array 2020	OCP	-
7044	Magnetic	452655	6094439	A2	-	-	-	106	A large, distinct magnetic dipole identified on more than one survey line and on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	Array 2020, OFTO 2020	Block G/OCP	-
7045	Magnetic	452816	6094440	A2	-	-	-	8	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of buried ferrous debris, or a natural feature	Mag.	Array 2020	OCP	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7046	Magnetic	452840	6094417	A2	-	-	-	6	A small, broad magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of buried ferrous debris, or a natural feature	Mag.	Array 2020	OCP	-
7047	Seabed disturbance	452949	6094544	A2	17.7	9.9	0.2	-	Elongate area of seabed disturbance comprising numerous small dark reflectors, some with small shadows, and two distinct, parallel, linear ridges. Identified in the MBES data as an east-west trending shallow depression, with two NNW-SSE trending linear features at its eastern end. No associated mag. anomaly. Located in an area of similar natural depressions and may be a natural feature, but the linear features may indicate possible debris.	SSS, MBES	Array 2020	OCP	-
7170	Magnetic	452749	6093650	A2	-	-	-	16	A small negative monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	Array 2020	OCP	-
7648	Magnetic	452586	6094570	A2	-	-	-	64	Medium negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block G/OCP	-

Notes

1. Co-ordinates are in WGS84 UTM31N
2. Positional accuracy estimated ± 5 m

Export Cable Route

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7042	Magnetic	452259	6094366	A2	-	-	-	12	Small but distinct magnetic dipole identified on one survey line, but on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	Array 2020, OFTO 2020	Block G/OCP	-
7044	Magnetic	452655	6094439	A2	-	-	-	106	A large, distinct magnetic dipole identified on more than one survey line and on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	Array 2020, OFTO 2020	Block G/OCP	-
7500	Magnetic	439298	6086087	A2	-	-	-	13	Two relatively small, separate magnetic anomalies identified on adjacent lines, potentially indicating the presence of ferrous material situated between the survey lines. No associated SSS or MBES contact, so any ferrous debris at this location is likely to be buried or have no surface expression. Position given is the central point between the two anomalies.	Mag.	OFTO 2020	Block G	-
7501	Magnetic	435007	6083948	A2	-	-	-	37	Small but distinct magnetic dipole identified on one survey line, but without an associated SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7502	Dark reflector	427969	6080267	A2	6.1	5.1	0.1	-	A distinct irregularly shaped dark reflector with very slight height, located in a generally featureless area of seabed. No associated magnetic anomaly but identified in the MBES data as a distinct depression with a steeply sloping side to the northwest and a shallow scour to the southeast. Possible partially buried non-ferrous debris but could be a natural feature.	SSS, MBES	OFTO 2020	Block G	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7503	Magnetic	427839	6080167	A2	-	-	-	116	Large, distinct magnetic dipole identified on one survey line. No associated SSS or MBES contacts. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7642	Magnetic	441210	6087052	A2	-	-	-	16	Small, irregular magnetic dipole identified on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression, or could be a natural feature.	Mag.	OFTO 2020	Block G	-
7643	Magnetic	438116	6085668	A2	-	-	-	13	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7644	Magnetic	439419	6086352	A2	-	-	-	55	Medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7645	Magnetic	443882	6088916	A2	-	-	-	17	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7646	Debris	444736	6089358	A2	13.8	0.8	0.3	-	Curvilinear bright reflector, potentially a scar, with a dark reflector with shadow at one end. Visible in the MBES data as a shallow curvilinear depression. No associated Mag. anomaly. Possible partially buried non-ferrous debris.	SSS, MBES	OFTO 2020	Block G	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7647	Magnetic	450982	6093522	A2	-	-	-	26	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block G	-
7648	Magnetic	452586	6094570	A2	-	-	-	64	Medium negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block G/OCP	-
7504	Magnetic	392731	6082169	A2	-	-	-	19	Small positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block F	-
7649	Magnetic	391481	6082274	A2	-	-	-	27	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7650	Magnetic	393649	6081921	A2	-	-	-	144	A large positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7651	Magnetic	397214	6081425	A2	-	-	-	36	Distinct, small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7652	Magnetic	397605	6081427	A2	-	-	-	29	Distinct, small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7653	Magnetic	399194	6080946	A2	-	-	-	61	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts, but a small mound seen at this location on the MBES data. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7654	Rope/chain	399364	6081443	A2	58.4	0.3	0.0	-	Long, slightly curvilinear dark reflector with no clear shadow. Located 62 m NWW from similar anomaly 7655 and on the same orientation, these may be parts of the same feature, but this cannot be assured. No cables are recorded for this area. No associated MBES or Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS	OFTO reroute 2020	Block F	-
7655	Rope/chain	399399	6081331	A2	49.7	0.6	0.0	-	Long, slightly curvilinear dark reflector with no discernible shadow. Located 62 m SSE from similar anomaly 7654 and on the same orientation, these may be parts of the same feature, but this cannot be assured. No cables are recorded for this area. No associated MBES or Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS	OFTO reroute 2020	Block F	-
7656	Mound	399795	6081112	A2	5.2	2.0	0.1	-	Elongated mound, fairly low and tapering in shape. Orientated in opposition to surrounding mega ripples. No associated SSS or Mag. contacts. Possible non-ferrous debris or a natural feature.	MBES	OFTO reroute 2020	Block F	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7657	Magnetic	401550	6081009	A2	-	-	-	140	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7658	Magnetic	401613	6081006	A2	-	-	-	28	A small, slightly broad, positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Located 62 m ESE of anomaly 7658 and possibly related. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7659	Debris	401863	6080909	A2	1.0	0.5	0.0	-	Dark reflector, circular in plan with a possible depression in the centre and no discernible shadow. Isolated in an otherwise featureless seabed. No associated MBES or Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS	OFTO reroute 2020	Block F	-
7660	Magnetic	401972	6081092	A2	-	-	-	52	A medium positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7661	Magnetic	402253	6080860	A2	-	-	-	117	A large positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts, but a small irregular mound is visible at this location on the MBES data. Possible ferrous debris.	Mag.	OFTO reroute 2020	Block F	-
7662	Magnetic	402889	6080870	A2	-	-	-	28	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts, but a small mound is visible at this location on the MBES data. Possible ferrous debris.	Mag.	OFTO reroute 2020	Block F	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7663	Magnetic	403466	6080724	A2	-	-	-	20	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7664	Magnetic	406717	6080658	A2	-	-	-	91	Five magnetic anomalies seen forming a linear trend, oriented north-west to south-east, crossing the study area. The anomaly with greatest amplitude is a medium positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Not visible on the chart for the area. Possible ferrous debris, either buried or without surface expression. Length suggests it may be modern in origin but retained as a precaution due to know historic minefields in the area.	Mag.	OFTO reroute 2020	Block F	-
7665	Dark reflector	407353	6080615	A2	5.3	3.0	0.4	-	Elongate, broad and slightly curved dark reflector with a clear triangular shadow. Visible on the MBES data as a distinct mound, V-shaped in plan which has gently sloped sides. Located within an area of mobile sediment. No associated Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO reroute 2020	Block F	-
7666	Magnetic	409904	6080343	A2	-	-	-	69	A medium, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7667	Magnetic	415132	6079964	A2	-	-	-	26	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts, but a very small mound is visible on MBES data at this location. Possible ferrous debris.	Mag.	OFTO reroute 2020	Block F	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7668	Dark reflector	415810	6079990	A2	1.7	1.5	0.3	-	Elliptical dark reflector without visible shadow. A small scour is seen. No associated MBES or Mag. contacts, but a mound within an elongate depression is seen at this location on the MBES data. Probably natural in origin.	SSS	OFTO reroute 2020	Block F	-
7669	Magnetic	415831	6080017	A2	-	-	-	30	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7670	Debris field	417041	6079896	A2	6.6	1.4	0.1	-	Small area of very short linear and angular dark reflectors with short shadows. Possibly up to 5 adjacent individual objects. No associated MBES or Mag. contacts, but a small mound with associated scour is present at this location in the MBES data. Possible non-ferrous debris or a natural feature.	SSS	OFTO reroute 2020	Block F	-
7671	Dark reflector	417296	6079972	A2	3.8	2.6	1.1	-	Distinct, rectangular dark reflector with a large tapered shadow. Visible on the MBES data as a distinct, slightly elongated or sub-angular mound with tall rounded profiles. This is present in a shallow associated scour. No associated Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO reroute 2020	Block F	-
7672	Mound	418331	6079931	A2	1.5	1.3	0.8	-	Distinct mound, unusually tall for the area, irregular and angular. Located within a depression 0.9 m deep. No associated SSS or Mag. contacts. Possible non-ferrous debris or a natural feature.	MBES	OFTO reroute 2020	Block F	-
7673	Magnetic	419064	6079783	A2	-	-	-	10	A small, broad magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7674	Magnetic	422781	6079519	A2	-	-	-	64	A medium, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7675	Magnetic	423357	6079478	A2	-	-	-	14	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO reroute 2020	Block F	-
7505	Magnetic	388835	6082010	A2	-	-	-	87	medium, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-
7506	Magnetic	381546	6081206	A2	-	-	-	31	small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-
7676	Dark reflector	380768	6080939	A2	2.0	0.7	0.1	-	Newly identified as an irregular dark reflector with small, poorly defined shadow. Isolated in an extensive area of very featureless seabed. Seen in the MBES data as a small mound with an associated depression, probably scour. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block E	-
7507	Magnetic	372066	6079825	A2	-	-	-	30	small, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7508	Dark reflector	371561	6079793	A2	1.9	1.8	0.5	-	distinct dark reflector with large, distinct shadow, and small surrounding depression. Isolated in an extensive area of very featureless seabed. Seen in the MBES data as a very distinct sub-angular mound with a rounded top and unevenly sloping sides. No clear scour visible, although there may be some elements of scour encircling the mound. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block E	-
7509	Dark reflector	367272	6079164	A2	1.5	1.3	0.8	-	distinct dark reflector with large, bright and tapered shadow. This is much larger than any natural features seen in the area. Located in an area of high reflectivity, possibly till outcrop. Seen on the MBES data as a very distinct rounded mound with a flat top and evenly sloping sides. No clear scour is seen, and the feature appears isolated in the level seabed surrounding. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block E	-
7510	Seabed disturbance	367052	6079179	A2	4.4	1.5	0.2	-	small area of seabed disturbance, comprising an unclear alignment of possible, poorly defined dark reflectors with shadows. Isolated within an extensive area of very featureless seabed. Seen on the MBES data as a poorly defined, elongate dark reflector, with a poorly defined shadow. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7511	Dark reflector	366885	6079143	A2	1.4	0.4	0.2	-	poorly defined, elongate dark reflector with poorly defined shadow. Isolated in an extensive area of very featureless seabed. Two small mounds within a depression are seen on the MBES data at the location of this contact. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block E	-
7512	Dark reflector	365556	6078881	A2	3.0	2.4	0.5	-	large, poorly defined dark reflector with a small shadow. Isolated in an extensive area of very featureless seabed. Seen in the MBES data as a rounded elongate mound with steeply sloping sides (steepest on the south side) and a rounded top. There is some possible scour to the south which extends for 0.9 m and is 0.1 m deep. Isolated and unusual for the area. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS, MBES	OFTO 2020	Block E	-
7677	Mound	365231	6078759	A2	2.3	2.0	0.2	-	mound with a rounded top and an irregular edge to the south, sub-rounded in plan. Some scour is visible to the south, extending for 2 m and 0.1 m deep. Isolated. No corresponding SSS or Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	MBES	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7513	Debris	364033	6078659	A2	4.8	2.0	0.4	-	distinct, short, linear dark reflector with distinct shadow along its length. Isolated in an extensive area of featureless seabed. Seen on the MBES data as a series of at least four mounds which appear more distinct than others in the area. On a linear north-east to south-west alignment. The largest is 2.0 x 0.9 x 0.1 m. No corresponding Mag. contact. Possible non-ferrous linear debris; however, this cannot be confirmed without visual inspection.	SSS, MBES	OFTO 2020	Block E	-
7514	Magnetic	363020	6078449	A2	-	-	-	36	small positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7515	Magnetic	362106	6078212	A2	-	-	-	5	small, broad dipole with peak and trough on one survey line. Smaller than threshold but clear and sharp. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7516	Magnetic	360097	6077923	A2	-	-	-	8	small, slightly broad dipole with peak and trough on one survey line. Clear and somewhat sharp. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7517	Magnetic	359734	6077752	A2	-	-	-	18	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7518	Magnetic	355960	6077112	A2	-	-	-	14	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7519	Magnetic	355697	6076963	A2	-	-	-	25	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7520	Debris	354057	6076672	A2	0.7	0.9	0.0	-	small, circular dark reflector without shadow, but with possible central depression. A small oval mound with an associated depression is seen on the MBES data at the location of this contact, which appears fairly distinct. No corresponding Mag. contact. Possible debris, perhaps a tyre; however, this cannot be confirmed without visual inspection.	SSS	OFTO 2020	Block E	-
7521	Magnetic	352392	6076311	A2	-	-	-	60	medium positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-
7522	Magnetic	351275	6076094	A2	-	-	-	10	small dipole with peak and trough on one survey line. Clear and sharp. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-
7523	Magnetic	350216	6075980	A2	-	-	-	61	medium positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-
7524	Magnetic	349924	6075810	A2	-	-	-	81	medium positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7678	Debris	349173	6075579	A2	2.5	2.2	0.3	-	rounded mound with multiple pointed sections, particularly on the southeast side. Possibly indicating an area of multiple features. Some scour visible surrounding, extending primarily to the south east for 2 m. No corresponding SSS or Mag. contact. Possible item of non-ferrous debris.	MBES	OFTO 2020	Block E	-
7525	Seabed disturbance	347595	6075377	A2	11.0	10.4	0.3	-	circular area of poorly defined seabed disturbance, with a poorly defined shadow along the edge furthest from the sonar towfish. A possible depression with one mounded side. Seen on the MBES data as a sub-rounded mound and an area of scour or possible depression. The depression extends to the north for approximately 9.5 m and is 0.1 m deep. The mound has a narrow, rounded top. Isolated in the surrounding seabed. No corresponding Mag. contact. Possible previous geotech sampling location; however, this cannot be confirmed without records, or visual inspection. Retained as a precaution.	SSS, MBES	OFTO 2020	Block E	-
7526	Magnetic	347523	6075411	A2	-	-	-	38	small, sharp dipole with peak and trough on one survey line. In proximity to large anomaly associated with cable route, but distinct from this. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
7679	Magnetic	348436	6075656	A2	-	-	-	48	Small magnetic dipole identified with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7680	Dark reflector	356389	6077210	A2	1.4	0.5	0.2	-	Small, elongate dark reflector with small shadow, but without an associated Mag. anomaly. Situated close to similar feature 7681. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block E	-
7681	Dark reflector	356397	6077212	A2	1.6	0.2	0.1	-	Small, elongate dark reflector with small shadow, but without an associated Mag. anomaly. Situated close to similar feature 7680. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block E	-
7682	Magnetic	366516	6079356	A2	-	-	-	10	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7683	Magnetic	367574	6079339	A2	-	-	-	26	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7684	Magnetic	369009	6079622	A2	-	-	-	30	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7685	Magnetic	369564	6079590	A2	-	-	-	5	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7686	Magnetic	369541	6079587	A2	-	-	-	6	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7687	Magnetic	373293	6080096	A2	-	-	-	17	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7688	Dark reflector	375372	6080368	A2	1.0	0.3	0.1	-	Elongate dark reflector with small shadow, but without an associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block E	-
7689	Magnetic	378908	6080933	A2	-	-	-	6	Small but distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7690	Magnetic	379135	6080968	A2	-	-	-	24	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7691	Magnetic	379807	6081062	A2	-	-	-	189	Large, distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7692	Magnetic	384048	6081634	A2	-	-	-	49	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7693	Magnetic	384187	6081669	A2	-	-	-	16	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7694	Magnetic	384239	6081733	A2	-	-	-	25	Small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7695	Magnetic	384340	6081746	A2	-	-	-	21	Small but distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block E	-
7696	Magnetic	385527	6081930	A2	-	-	-	8	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block E	-
7697	Magnetic	388221	6082133	A2	-	-	-	39	Small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Possibly related to nearby anomaly 7698, but this is uncertain.	Mag.	OFTO 2020	Block E	-
7698	Magnetic	388251	6082081	A2	-	-	-	128	Large, distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Possibly related to nearby anomaly 7697, but this is uncertain.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70757	Magnetic	349669	6075864	A2	-	-	-	30	Medium, distinct magnetic dipole with peak and trough on one survey line, identified during previous assessments and within the most recent data set. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression. Position updated to reflect most recent data.	Mag.	Teesside cable route 2013, OFTO 2020	Block E	-
70772	Magnetic	379266	6080948	A2	-	-	-	10	Small but distinct magnetic dipole identified on two survey lines during previous phase of work. Not identified within the most recent geophysical data. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block E	-
70775	Magnetic	382882	6081544	A2	-	-	-	59	Medium positive magnetic monopole with peak and trough on two survey lines, identified both during previous phases of work and within the most recent geophysical data. Possible ferrous debris that is either buried or without surface expression. Position updated to reflect most recent data.	Mag.	OFTO 2020	Block E	-
70779	Magnetic	386243	6081975	A2	-	-	-	13	Small but distinct magnetic dipole identified during previous phase of work. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Not identified within the most recent geophysical data but retained as a precaution.	Mag.	OFTO 2020	Block E	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70780	Magnetic	389832	6082033	A2	-	-	-	18	Small but distinct magnetic monopole with peak and trough on two survey lines, identified during previous phase of work. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Not identified within the most recent geophysical data but retained as a precaution.	Mag.	OFTO 2020	Block E	-
7699	Dark reflector	334936	6074445	A2	4.1	3.1	0.0	-	Newly identified as an indistinct dark reflector which has no associated shadow. This is possibly anthropogenic, but interpretation is limited by data quality. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7527	Debris field	333539	6074034	A2	30.7	5.5	0.3	-	Linear ridge identified in the MBES data, trending approximately NNW-SSE across the centre of the study area. Identified in the SSS data as an elongate area of possible disturbance, with distinct dark reflectors with shadows at both ends. No associated magnetic anomaly. Located in an extensive area of featureless seabed, and unlikely to be a natural feature. Probable partially buried debris, although any debris at this location is likely to be non-ferrous. Not identified during previous surveys over the area, suggesting it is either periodically completely buried or modern.	MBES, SSS	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7528	Dark reflector	329442	6072454	A2	1.8	0.5	0.5	-	distinct dark reflector which casts a bright, tapered shadow. This has an associated scour. The feature is very unusual and large for the area. This is visible on the MBES data as an irregular mound, rounded in plan, or three angular mounds located in proximity to one another. These are present in a depression. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	MBES, SSS	OFTO 2020	Block D	-
7529	Magnetic	328997	6072376	A2	-	-	-	42	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7530	Debris	327993	6071990	A2	24.4	4.6	0.0	-	Newly identified as an indistinct dark reflector without a shadow. Associated with a linear dark reflector which is slightly indistinct and also does not cast a shadow. No corresponding MBES or Mag. contact. Possible debris, perhaps an anchor and rope; however, this cannot be confirmed without visual inspection.	SSS	OFTO 2020	Block D	-
7531	Seabed disturbance	327254	6071621	A2	12.3	4.4	0.1	-	disturbed area of seabed, not well-defined. Possibly a linear feature, or a scour. Seen as a slight, indistinct mound on the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7700	Dark reflector	323657	6070261	A2	1.3	0.6	0.0	-	distinct dark reflector which does not appear to have an associated shadow. This is unusual for the area. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7532	Dark reflector	323211	6070253	A2	1.8	0.3	0.2	-	Dark reflector, which is possibly angular and casts a broad, possibly slightly tapered shadow which is not very bright or defined. This is located directly alongside 7533 (which is much larger), both are likely located in an area of stretched data and so dimensions may not be accurate. Seen as a small curved mound on the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7533	Dark reflector	323210	6070251	A2	5.1	1.0	0.2	-	Dark reflector which is possibly angular and casts a broad shadow which is not very bright or defined. This is located directly alongside 7532, both are likely located in an area of stretched data and so dimensions may not be accurate. Seen as a small curved mound on the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7534	Magnetic	321480	6069695	A2	-	-	-	49	small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7535	Dark reflector	317339	6069014	A2	1.9	0.7	0.7	-	distinct dark reflector, sub-rounded in plan and with a hard edge. This has a bright and broad shadow, with straight sides and a slanted end shape. Seen on an adjacent line of SSS data as having a wide shadow. An area of darker seabed surrounds. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7536	Dark reflector	316938	6068964	A2	1.4	1.2	0.2	-	Newly identified as an angular and distinct dark reflector which casts a short, tapered shadow. This is quite an anomalous shape for the area. A very slight mound and depression are seen at the location of this feature on the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7537	Rope/chain	316608	6069046	A2	58.4	0.4	0.1	-	linear dark reflector which casts a short, distinct shadow. The dark reflector is not constant, appearing to become wider and narrower over the length of the feature. However, it is likely that this is one continuous feature. No corresponding MBES or Mag. contact. Possible debris, perhaps a rope or chain; however, this cannot be confirmed without visual inspection.	SSS	OFTO 2020	Block D	-
7538	Debris	316551	6068974	A2	3.7	2.2	1.2	-	distinct angular dark reflector with a hard edge. This casts a fairly bright shadow which tapers asymmetrically. Seen on the MBES data as an irregular mound. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS	OFTO 2020	Block D	-
7539	Magnetic	316343	6069009	A2	-	-	-	38	small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7540	Magnetic	315606	6068814	A2	-	-	-	13	small negative monopole with peak and trough on one survey line. Not noted on any other sensors. Seen on the MBES data as an irregular mound. No corresponding SSS contact. May represent possible ferrous debris or a natural feature.	Mag.	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7541	Magnetic	315579	6068903	A2	-	-	-	151	large positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7542	Magnetic	315005	6068816	A2	-	-	-	70	medium negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7543	Seabed disturbance	313253	6068497	A2	2.2	0.5	0.2	-	Newly identified as three distinct dark reflectors located adjacent to one another. The centre feature is slightly curved. The shadow associated is indistinct but appears to be fairly straight-sided and possibly ends in a slight fork. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7545	Seabed disturbance	312357	6068358	A2	3.8	1.1	0.3	-	Newly identified as an indistinct dark reflector seen as a curved area, with indistinct edges. This casts a bright shadow along its length which tapers irregularly. Possibly a curvilinear anomaly, or a feature with a hard edge. A slight mound is seen at this location in the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7546	Dark reflector	311103	6068196	A2	1.8	0.2	0.0	-	short and narrow linear feature, very distinct. This casts a bright, short shadow. Possibly a natural feature, as it does align with other seabed features; however, this is very distinct. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7547	Dark reflector	310985	6068193	A2	1.5	0.4	0.0	-	short, slightly elongated feature which has no associated shadow. This is fairly distinct and well-defined. It is not dissimilar from features surrounding which are presumed natural, but it is more striking. Located close to 7548. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7548	Dark reflector	310976	6068192	A2	1.5	0.5	0.0	-	short, slightly elongated feature which has no associated shadow. This is fairly distinct and well-defined. It is not dissimilar from features surrounding which are presumed natural, but it is more striking. Located close to 7547. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7549	Magnetic	310835	6068133	A2	-	-	-	11	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block D	-
7550	Dark reflector	309145	6067766	A2	1.2	0.6	0.3	-	short linear dark reflector which casts a straight sided shadow. This feature is oriented counter to the sand waves which surround. A mound is visible on the MBES data. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-
7552	Mound	307480	6067425	A2	4.8	3.1	0.2	-	fairly low mound, almost triangular in plan with a hard edge and some shadow along its full extent. This is very unusual for the area, despite being located in an area of seabed characterised by frequent rocks. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7701	Mound	347594	6075372	A2	7.9	6.0	0.3	-	low mound located at the edge of a depression. The mound and depression appear to be associated and are similar in form to features made by anthropogenic equipment pressing into the seabed (such as jack up rigs). The depression has not been tagged as part of this feature but is 0.1 m deep. This is slightly better defined than similar features in the area. No corresponding SSS or Mag. contact. Probably natural, or modern anthropogenic in origin.	MBES	OFTO 2020	Block D	-
7702	Magnetic	310139	6068123	A2	-	-	-	8	A small but distinct magnetic dipole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block D	-
7703	Dark reflector	314651	6068836	A2	3.3	2.8	0.9	-	Distinct angular dark reflector with large shadow and associated scour. Identified in the MBES data as a small but distinct mound within a scour. No associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block D	-
7704	Magnetic	316187	6069038	A2	-	-	-	10	A small but distinct magnetic dipole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block D	-
7705	Magnetic	316093	6069023	A2	-	-	-	22	A small but distinct negative magnetic monopole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7706	Magnetic	318189	6069321	A2	-	-	-	104	A large, distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block D	-
7707	Magnetic	322502	6070052	A2	-	-	-	16	A small but distinct magnetic dipole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block D	-
70750	Magnetic	327988	6071901	A2	-	-	-	18	A small but distinct negative magnetic monopole with peak and trough on one survey line, identified during previous phases of work but not within the most recent geophysical data. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Retained as a precaution.	Mag.	Teesside cable route 2013	Block D	-
70751	Magnetic	329671	6072522	A2	-	-	-	7	A small but distinct magnetic dipole with peak and trough on one survey line, identified during previous phases of work but not within the most recent geophysical data. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Retained as a precaution.	Mag.	Teesside cable route 2013	Block D	-
7708	Magnetic	339838	6075242	A2	-	-	-	5	A small but distinct magnetic dipole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7709	Magnetic	342179	6075444	A2	-	-	-	7	A small but distinct magnetic dipole with peak and trough on one survey lines. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block D	-
7710	Debris	345107	6075526	A2	4.4	0.4	0.0	-	Elongate, distinct dark reflector with possible very small shadow, but this is unclear. No associated Mag. anomaly. Possible non-ferrous debris.	SSS	OFTO 2020	Block D	-
70764	Magnetic	320757	6069601	A2	-	-	-	76	Identified both during previous assessments and within the most recent data set as a medium negative magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris that is either buried or without surface expression. Position and amplitude updated to reflect most recent data set.	Mag.	Teesside cable route 2013, OFTO 2020	Block D	-
70816	Dark reflector	316723	6068872	A2	5.0	2.3	1.0	-	Poorly defined dark reflector, irregular in plan, which casts a bright, irregular shadow that tapers to an extreme, narrow point. Identified in the MBES data as a small area of possible seabed disturbance. Identified during both previous phases of work and within the most recent geophysical data. No corresponding Mag. contact. Reinterpreted as a dark reflector and could be non-ferrous debris or a natural feature. Position updated to reflect most recent data.	SSS	Teesside cable route 2013, OFTO 2020	Block D	-
70817	Debris	315271	6068755	A2	10.0	1.5	1.0	-	Elongate, intermittent dark reflector with distinct shadow but without an associated magnetic anomaly, identified during previous phase of assessment. Previously interpreted as possible non-ferrous debris. Not identified within the most recent data set and may be buried at present.	SSS	Teesside cable route 2013	Block D	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70818	Dark reflector	310583	6067991	A2	3.0	2.5	0.9	-	A sub-angular dark reflector which casts a bright shadow, with straight sides that flare slightly and end in an asymmetrical taper. Identified during both previous phases of work and within the most recent geophysical data. Identified in the MBES data as a distinct, steep sided mound within a small scour. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS, MBES	Teesside cable route 2013, OFTO 2020	Block D	-
70819	Seabed disturbance	312753	6068334	A2	13.4	2.1	0.5	-	Area of seabed disturbance identified both during previous assessments and within the current data set. Characterised by distinct dark reflectors, rounded in plan, with very bright associated shadows which are rounded in shape. At least four, closely spaced distinct features are visible. Located outside the area of MBES data coverage. No corresponding Mag. contact. Originally interpreted as a debris field, now classed as a seabed disturbance based on new data. Position and dimensions updated to reflect most recent data set.	SSS	Teesside cable route 2013, OFTO 2020	Block D	-
7711	Debris	308865	6067599	A2	2.5	2.4	0.5	-	mound roughly oval in shape. This has a sharp profile and is domed along its length. Present at a change in height of the seabed. A scour of 0.1 m deep is associated. No corresponding SSS or Mag. contact. May represent possible non-ferrous debris.	MBES	OFTO 2020	Block C	-
7712	Magnetic	307747	6067617	A2	-	-	-	75	Distinct medium magnetic dipole with peak and trough on two survey lines and identified on overlapping data sets. No corresponding SSS or MBES contact. Possible ferrous debris that is either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7553	Magnetic	307451	6067527	A2	-	-	-	50	small dipole with peak and trough on one survey line and identified on overlapping data sets. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag., Grad.	OFTO 2020	Block C	-
7554	Magnetic	302668	6067790	A2	-	-	-	14	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7555	Magnetic	301429	6067717	A2	-	-	-	49	small, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7556	Magnetic	300154	6067725	A2	-	-	-	118	large, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7557	Magnetic	298376	6067729	A2	-	-	-	30	small positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7558	Dark reflector	297890	6067680	A2	4.8	3.1	0.7	-	Distinct, elongate dark reflector with shadow, identified in the MBES data as a seabed disturbance seen within a depression. This is visible as a collection of features of varying shapes, including some short, almost linear features. The depression is 0.4 m deep. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7559	Magnetic	297772	6067664	A2	-	-	-	10	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7560	Magnetic	297128	6067581	A2	-	-	-	32	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7561	Magnetic	296466	6067497	A2	-	-	-	329	large, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7562	Magnetic	295663	6067135	A2	-	-	-	64	medium, sharp dipole with peak and trough on one survey line. Adjacent to smaller anomaly interpreted as a natural feature. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7563	Magnetic	294615	6066766	A2	-	-	-	39	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7564	Debris	293860	6066414	A2	2.7	2.4	0.3	20	Distinct dark reflector with shadow, identified as an irregular mound located in a scour in the MBES data. The scour measures 8.6 x 4.7 m and is around 0.2 m deep. Seen on the magnetic data as a small, highly asymmetric dipole with peak and trough over two survey lines. No corresponding SSS contact. Possible ferrous debris.	SSS, MBES, Mag.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7565	Debris	292601	6065999	A2	1.9	1.2	0.5	-	Linear alignment of 21 rounded dark reflectors with shadows, crossing NE-SW across the width of the OFTO study area. Anomalies are relatively uniformly spaced, at approximately 25 – 30 m intervals, and are connected by an intermittent curvilinear bright reflector, interpreted as a length of rope. The exact position of the curvilinear feature differs between different survey lines, suggesting movement of the rope due to differing currents in the area. Three of the dark reflectors are associated with distinct magnetic anomalies, up to 64 nT in amplitude, suggesting the features are at least partially ferrous. Probable modern fishing gear, although has the potential to be UXO based on the knowledge of historic minefields in the area. Dimensions given are for the largest individual dark reflector. Total visible length of the feature is 644 m, although it extends beyond the limits of the present data coverage.	SSS	OFTO 2020	Block C	-
70711	Debris	292603	6065922	A2	7.6	2.8	0.9	-	Large dark reflector which casts a bright, irregularly tapered shadow, identified during previous phases of work and within the most recent data set. Seen on the MBES as a large, irregular mound located within a depression measuring 15.3 x 8.5 x -0.8 m. No corresponding Mag. contact. Located approximately 50 m southeast from linear debris 7565 and may be related, although this is uncertain. Possible non-ferrous debris. Position and dimensions updated to reflect most recent data.	SSS, MBES	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7566	Dark reflector	292255	6065980	A2	2.2	1.2	0.3	-	fairly distinct dark reflector which casts an irregular shadow. The shadow is short along most of its length but has a narrow projection partway along. This may be two features located close by. A scour is seen to surround the feature. A small depression is seen on the MBES data at the location of this contact. No corresponding MBES or Mag. contact. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-
7713	Dark reflector	287310	6065519	A2	2.8	1.5	0.3	-	Newly identified as two small mounds located adjacent to one another, set within a depression. The depression is fairly large, at 15.3 x 5.3 m and 0.3 m deep. No corresponding Mag. contact. Could be non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Block C	-
7567	Magnetic	286861	6065359	A2	-	-	-	24	Medium magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7568	Magnetic	286748	6065451	A2	-	-	-	12	small dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7569	Magnetic	284586	6065221	A2	-	-	-	33	small dipole with peak and trough on one survey line. Adjacent to similar anomaly and possibly related. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7570	Magnetic	284570	6065219	A2	-	-	-	22	small dipole with peak and trough on one survey line. Adjacent to similar anomaly and possibly related. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7571	Magnetic	280429	6064694	A2	-	-	-	41	small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7572	Magnetic	280209	6064619	A2	-	-	-	26	small positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7573	Magnetic	279970	6064586	A2	-	-	-	86	medium, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7574	Magnetic	279727	6064603	A2	-	-	-	57	medium positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag., Grad.	OFTO 2020	Block C	-
7575	Magnetic	279673	6064593	A2	-	-	-	29	small, sharp dipole with peak and trough on one survey line, identified on overlapping data sets. No corresponding SSS or MBES contact. Probably natural in origin.	Mag., Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7576	Debris	278938	6064465	A2	0.8	0.4	0.3	-	A linear alignment of three distinct dark reflectors with shadows, connected by a poorly defined linear feature interpreted as a length of rope or chain. Associated with a distinct magnetic anomaly, identified on a number of survey lines. Probable modern fishing gear, although has the potential to be UXO based on the knowledge of historic minefields in the area. Dimensions given are for the largest individual dark reflector. Total visible length of the feature is 7 m.	SSS	OFTO 2020	Block C	-
7577	Dark reflector	278691	6064503	A2	2.4	1.4	0.8	14	distinct dark reflector which casts a bright, irregularly tapered shadow. Seen on the MBES data as a mound, roughly rectangular in shape with irregular height. Associated with a small, relatively broad magnetic dipole. Possible ferrous debris or a natural feature with a high percentage of ferrous minerals.	SSS, MBES	OFTO 2020	Block C	-
7578	Debris field	278486	6064411	A2	6.0	2.4	0.1	40	slightly elongated feature which is comprised of multiple smaller features, one of which is semi-circular in shape. Associated with a distinct magnetic dipole. Possible ferrous debris.	MBES	OFTO 2020	Block C	-
7579	Magnetic	277242	6064351	A2	-	-	-	17	small, broad dipole with peak and trough on one survey line and on overlapping data sets. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-
7580	Magnetic	276877	6064315	A2	-	-	-	24	small dipole with peak and trough on one survey line and on overlapping data sets. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag., Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7581	Debris	276506	6064272	A2	2.2	1.4	1.0	21	distinct, elongate dark reflector which casts a bright, straight sided and flat ended shadow. Associated with a small but distinct magnetic dipole. Possible ferrous debris.	SSS	OFTO 2020	Block C	-
7714	Magnetic	276392	6064214	A2	-	-	-	9	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7582	Magnetic	275418	6064075	A2	-	-	-	12	small positive monopole with peak and trough over two survey lines. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7715	Magnetic	274780	6064111	A2	-	-	-	11	small negative monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7716	Dark reflector	274657	6063930	A2	2.8	0.8	0.8	-	distinct, sub-angular dark reflector, which casts a bright shadow with straight sides and a slanted end shape. Outside the area of MBES data coverage. No corresponding Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS	OFTO 2020	Block C	-
7583	Magnetic	274155	6063955	A2	-	-	-	41	small, slightly asymmetric dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression.	Mag.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7584	Magnetic	273979	6063928	A2	-	-	-	22	small positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contact. May represent possible ferrous debris with no surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block C	-
7717	Seabed disturbance	273552	6064023	A2	4.0	3.1	0.4	-	well-defined, irregular area of seabed, roughly circular in plan. Scour is seen surrounding. No corresponding SSS or Mag. contact. Possible non-ferrous debris or a natural feature.	MBES	OFTO 2020	Block C	-
7585	Magnetic	272337	6063731	A2	-	-	-	68	magnetic with peak and trough on two survey lines and identified on overlapping data sets. No corresponding SSS or MBES contact. May represent possible ferrous debris that is either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block C	-
70685	Debris	271675	6063525	A2	4.3	1.9	1.3	149	An angular dark reflector which casts a bright, straight-sided shadow that ends in three points, identified during previous phases of work and within the most recent data set. Possibly three immediately adjacent features; however, this is difficult to discern and therefore they are recorded here as a single anomaly. Three small mounds are seen on the MBES data at the location of this contact. Associated with a large magnetic dipole, identified on overlapping data sets. Probable ferrous debris.	SSS, Mag., Grad.	Teesside cable route 2013, OFTO 2020	Block C	-
7586	Mound	271153	6063450	A2	6.2	1.1	0.1	-	linear mound, fairly straight and with a semi-circular profile. Some scour is seen surrounding. This is located 8 m from anomaly 7587. No corresponding SSS or Mag. contact. Possible non-ferrous debris or a natural feature. Retained as a precaution.	MBES	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7587	Debris	271146	6063446	A2	3.4	2.3	0.2	21	mound, slightly angular with an irregular plan. This appears unusual in an area of sand ripples. Present 8 m from anomaly 7586. Associated with a small but distinct positive magnetic monopole. Possible non-ferrous debris.	MBES	OFTO 2020	Block C	-
7721	Magnetic	271235	6063554	A2	-	-	-	25	A small but distinct magnetic dipole with peak and trough picked on one survey line, identified on overlapping data sets. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7722	Magnetic	271260	6063511	A2	-	-	-	31	A small but distinct magnetic dipole with peak and trough picked on one survey line, identified on overlapping data sets. No definite corresponding SSS or MBES contacts, but a small mound identified in the MBES data close by. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7723	Magnetic	271340	6063485	A2	-	-	-	23	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7724	Magnetic	271376	6063524	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough picked on two survey lines and identified on overlapping data sets. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7725	Magnetic	271605	6063439	A2	-	-	-	48	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7726	Magnetic	271654	6063448	A2	-	-	-	47	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7727	Magnetic	271738	6063489	A2	-	-	-	14	A small but distinct positive magnetic monopole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7728	Magnetic	271722	6063155	A2	-	-	-	112	Large, distinct, positive magnetic monopole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7729	Mound	271860	6063571	A2	2.5	1.7	0.5	51	Distinct mound identified within the MBES data, located adjacent to a sand wave. Associated with a distinct positive magnetic monopole. Possible ferrous debris, or could be a natural feature with a high percentage of ferrous mineral content.	MBES, Grad.	OFTO 2020	Block C	-
7730	Magnetic	272019	6063531	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7731	Magnetic	272016	6063558	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7732	Magnetic	272104	6063549	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7733	Magnetic	272031	6063611	A2	-	-	-	61	A medium but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7734	Magnetic	272078	6063614	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7735	Mound	272246	6063470	A2	3.0	2.1	1.2	-	An irregular, relatively tall mound, identified in the MBES data. Located in an area of sand waves and has a small, fairly shallow associated scour. No associated SSS or Mag. Anomalies. Possible non-ferrous debris but could be a natural feature. Retained as a precaution.	MBES	OFTO 2020	Block C	-
7736	Dark reflector	272227	6063593	A2	2.3	1.0	0.4	23	Rounded dark reflector with small shadow, associated with a small but distinct positive magnetic monopole with peak and trough picked on one survey line. Possible ferrous debris or a natural feature with a high ferrous mineral content.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7737	Magnetic	272490	6063799	A2	-	-	-	57	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7738	Magnetic	272613	6063794	A2	-	-	-	25	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7739	Magnetic	272966	6063816	A2	-	-	-	19	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7740	Magnetic	273238	6063750	A2	-	-	-	32	Small but distinct positive magnetic monopole with peak and trough picked on one survey line. No definite corresponding SSS or MBES contacts, but a small mound identified on the MBES data at this location. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7741	Magnetic	273441	6063981	A2	-	-	-	14	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7742	Magnetic	273519	6063925	A2	-	-	-	16	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7743	Magnetic	273552	6063834	A2	-	-	-	19	Small but distinct negative magnetic monopole with peak and trough picked on one survey line. No definite corresponding SSS or MBES contacts, but a small mound identified nearby in the MBES data. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7744	Magnetic	273750	6063850	A2	-	-	-	117	Large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7745	Magnetic	273779	6064015	A2	-	-	-	55	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7746	Magnetic	274016	6063921	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7747	Magnetic	274119	6063959	A2	-	-	-	10	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7748	Magnetic	274111	6064064	A2	-	-	-	14	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7749	Magnetic	274632	6064101	A2	-	-	-	42	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7750	Magnetic	274710	6064082	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7751	Debris	275036	6064172	A2	3.8	2.1	0.6	9	Low, elongate mound identified in the MBES data. Associated with a small but distinct magnetic dipole. Possible ferrous debris.	MBES, Grad.	OFTO 2020	Block C	-
7752	Magnetic	275000	6064082	A2	-	-	-	48	Small but distinct negative magnetic monopole with peak and trough picked on one survey line. No definite corresponding SSS or MBES contacts, but a small mound identified in the MBES data at this location. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7753	Magnetic	275193	6064012	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7754	Magnetic	275732	6064145	A2	-	-	-	16	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7755	Magnetic	275983	6064142	A2	-	-	-	89	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7756	Magnetic	276437	6064114	A2	-	-	-	24	Small but distinct positive magnetic monopole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7757	Magnetic	276899	6064275	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7758	Magnetic	276986	6064285	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7759	Magnetic	276924	6064353	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7760	Magnetic	277550	6064325	A2	-	-	-	21	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7761	Magnetic	277750	6064335	A2	-	-	-	224	Large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7762	Magnetic	277779	6064294	A2	-	-	-	18	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7763	Magnetic	278228	6064352	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7764	Magnetic	278280	6064373	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7765	Magnetic	278382	6064446	A2	-	-	-	54	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7766	Magnetic	278394	6064524	A2	-	-	-	9	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7767	Magnetic	278564	6064488	A2	-	-	-	21	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7768	Magnetic	278731	6064457	A2	-	-	-	33	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7769	Magnetic	278914	6064514	A2	-	-	-	43	A small but distinct magnetic dipole identified on more than one survey line. No corresponding SSS or MBES contact, but possibly related to nearby debris 7576 and may be related buried ferrous debris.	Grad.	OFTO 2020	Block C	-
7770	Magnetic	279154	6064494	A2	-	-	-	35	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7771	Magnetic	279198	6064462	A2	-	-	-	73	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7772	Magnetic	279257	6064561	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7773	Magnetic	279345	6064477	A2	-	-	-	91	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7774	Magnetic	279545	6064556	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7775	Mound	279577	6064628	A2	2.5	2.0	0.8	8	Relatively low, distinct mound identified in the MBES data. Associated with a small but distinct magnetic dipole. Possible ferrous debris, or a natural feature with a relatively high ferrous mineral content.	MBES, Grad.	OFTO 2020	Block C	-
7776	Magnetic	279683	6064706	A2	-	-	-	39	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7777	Magnetic	279678	6064680	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Immediately adjacent to Mag. anomaly 7778, and probably related.	Grad.	OFTO 2020	Block C	-
7778	Magnetic	279687	6064680	A2	-	-	-	52	A medium magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Immediately adjacent to Mag. anomaly 7777, and probably related.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7779	Magnetic	279711	6064651	A2	-	-	-	48	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7780	Magnetic	279715	6064667	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression or could be a natural feature.	Grad.	OFTO 2020	Block C	-
7781	Magnetic	279704	6064547	A2	-	-	-	13	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7782	Magnetic	279748	6064522	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7783	Magnetic	279781	6064529	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7784	Debris	280118	6064761	A2	7.3	3.6	0.3	49	Low, elongate, irregular mound identified in the MBES data. Associated with a distinct magnetic dipole. Possible ferrous debris.	MBES, Mag.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7785	Magnetic	281564	6064940	A2	-	-	-	25	A small, broad, but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block C	-
7786	Magnetic	282831	6065083	A2	-	-	-	175	Large, distinct magnetic dipole identified with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7787	Magnetic	287833	6065612	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7788	Seabed disturbance	290343	6065802	A2	3.8	2.9	0.1	-	Area of irregular bright reflectors, potentially the shadows of poorly resolved dark reflectors but this is uncertain. No associated Mag. anomaly. Possible area of non-ferrous debris just beneath the seabed, or a seabed scar.	SSS	OFTO 2020	Block C	-
7789	Dark reflector	292665	6066084	A2	1.3	0.3	0.2	-	Elongate dark reflector with small shadow, located in a featureless area of seabed. No associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-
7790	Magnetic	295014	6067040	A2	-	-	-	27	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7791	Magnetic	297409	6067296	A2	-	-	-	21	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7792	Dark reflector	297897	6067648	A2	2.6	0.8	0.3	-	Distinct, elongate dark reflector with shadow, situated within a small depression/scour. No associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-
7793	Magnetic	298694	6067921	A2	-	-	-	10	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7794	Magnetic	303616	6067815	A2	-	-	-	63	A medium positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7795	Dark reflector	304268	6067784	A2	2.4	1.7	0.3	-	Irregular, elongate dark reflector with small shadow and possible small scour. No associated Mag. anomaly. Located in an area with numerous boulders on the seabed, and is possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-
7796	Dark reflector	304433	6067703	A2	2.9	1.0	0.7	-	Elongate dark reflector with distinct shadow, potentially two immediately adjacent features but this is unclear. No associated Mag. anomaly. Could be non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7797	Magnetic	305793	6067651	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7798	Magnetic	306005	6067650	A2	-	-	-	21	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7799	Magnetic	306115	6067699	A2	-	-	-	10	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-
7800	Magnetic	306338	6067687	A2	-	-	-	32	A small but distinct positive magnetic monopole with peak and trough on one survey line. No definite corresponding SSS or MBES contacts, but a small mound identified at this location in the MBES data. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-
7801	Magnetic	306409	6067623	A2	-	-	-	21	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7802	Magnetic	306478	6067639	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7803	Magnetic	306458	6067644	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-
7804	Magnetic	306470	6067585	A2	-	-	-	28	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7805	Magnetic	306472	6067571	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7806	Magnetic	306637	6067641	A2	-	-	-	23	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7807	Magnetic	306828	6067559	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7808	Magnetic	307005	6067584	A2	-	-	-	12	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7809	Magnetic	307140	6067564	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-
7810	Magnetic	307257	6067585	A2	-	-	-	21	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7811	Magnetic	307007	6067693	A2	-	-	-	22	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block C	-
7812	Magnetic	307377	6067587	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7813	Magnetic	307376	6067657	A2	-	-	-	45	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a curvilinear alignment of magnetic anomalies and may be a natural feature, although no definite seabed features that could cause an anomaly have been identified within the data. Retained as a precaution.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7814	Magnetic	307391	6067661	A2	-	-	-	29	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a curvilinear alignment of magnetic anomalies and may be a natural feature, although no definite seabed features that could cause an anomaly have been identified within the data. Retained as a precaution.	Grad.	OFTO 2020	Block C	-
7815	Magnetic	307424	6067658	A2	-	-	-	57	A medium magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a curvilinear alignment of magnetic anomalies and may be a natural feature, although no definite seabed features that could cause an anomaly have been identified within the data. Retained as a precaution.	Grad.	OFTO 2020	Block C	-
7816	Magnetic	307390	6067627	A2	-	-	-	14	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7817	Magnetic	307550	6067652	A2	-	-	-	11	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7818	Magnetic	307577	6067500	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a group of three broadly similar anomalies and may be related.	Grad.	OFTO 2020	Block C	-
7819	Magnetic	307581	6067510	A2	-	-	-	31	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a group of three broadly similar anomalies and may be related.	Grad.	OFTO 2020	Block C	-
7820	Magnetic	307569	6067506	A2	-	-	-	13	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Part of a group of three broadly similar anomalies and may be related.	Grad.	OFTO 2020	Block C	-
7821	Magnetic	307617	6067491	A2	-	-	-	56	A medium magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7822	Magnetic	307631	6067499	A2	-	-	-	12	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7823	Magnetic	307671	6067533	A2	-	-	-	29	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7824	Magnetic	307972	6067514	A2	-	-	-	15	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7825	Magnetic	308008	6067589	A2	-	-	-	73	A medium magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7826	Magnetic	308282	6067590	A2	-	-	-	30	A small but distinct positive magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7827	Magnetic	308343	6067628	A2	-	-	-	12	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7828	Magnetic	308636	6067672	A2	-	-	-	16	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7829	Magnetic	308615	6067706	A2	-	-	-	19	A small but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7830	Magnetic	308680	6067756	A2	-	-	-	21	A small but distinct positive magnetic monopole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block C	-
7831	Magnetic	308900	6067715	A2	-	-	-	109	Large, distinct magnetic dipole with peak and trough on two survey lines. No associated SSS or MBES contacts. Located along the edge of a distinct sand wave and may be related. However, amplitude suggests potential ferrous debris buried on the edge of the sand wave. Retained as a precaution.	Grad.	OFTO 2020	Block C	-
7832	Magnetic	309010	6067759	A2	-	-	-	7	A small but distinct magnetic dipole with peak and trough on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature.	Grad.	OFTO 2020	Block C	-
70688	Debris	272582	6063797	A2	3.4	2.4	1.4	84	Distinct dark reflector with large shadow, identified during previous phases of work. Associated with a distinct magnetic dipole in the recent geophysical data set. Reinterpreted as possible ferrous debris.	SSS, Grad.	Teesside cable route 2013, OFTO 2020	Block C	-
70689	Magnetic	272666	6063890	A2	-	-	-	5	Small magnetic dipole identified on a single survey line during previous phases of work. No associated SSS or MBES contact, and could be a piece of ferrous debris, either buried or without surface expression, or a natural feature. Located not covered by the most recent Mag. data, and so retained as a precaution as no direct data comparison can be made.	Mag.	Teesside cable route 2013	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70690	Debris	274031	6063878	A2	5.2	2.2	1.3	-	Distinct dark reflector with large shadow and associated scour, identified during previous phases of work. Associated with a steep, distinct, irregular mound identified within the current MBES data. No previously identified Mag. anomaly, although is not covered by Mag. data in the current data set. Possible debris.	SSS, MBES	Teesside cable route 2013, OFTO 2020	Block C	-
70692	Mound	280455	6064714	A2	4.0	3.5	0.9	-	Distinct, square shaped dark reflector with shadow identified during previous phases of assessment, but only within the MBES data in the most recent data set. Identified in the MBES data as an elongate, irregular mound situated within a small depression. No definitively associated magnetic anomaly but may be related to nearby anomaly 7571. Possible debris or a natural feature, retained due to proximity to magnetic anomaly. Position updated to reflect most recent data.	MBES	Teesside cable route 2013, OFTO 2020	Block C	-
70694	Magnetic	281068	6064924	A2	-	-	-	5	Small magnetic dipole identified on a single survey line during previous phases of work. No associated SSS or MBES contact, and could be a piece of ferrous debris, either buried or without surface expression, or a natural feature. Location not covered by the most recent Mag. data, and so retained as a precaution as no direct data comparison can be made.	Mag.	Teesside cable route 2013	Block C	-
70695	Dark reflector	283264	6065117	A2	5.4	2.2	0.7	-	Distinct dark reflector with shadow but without associated Mag. anomaly, identified during previous phases of work. Possibly associated with similar nearby features 70696 and 70697. Originally interpreted as debris, but reinterpreted as a dark reflector and could be non-ferrous debris or a natural feature.	SSS	Teesside cable route 2013	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70696	Dark reflector	283271	6065113	A2	2.2	1.2	0.6	-	Distinct dark reflector with shadow but without associated Mag. anomaly, identified during previous phases of work. Associated with a distinct mound in a scour in the MBES data. Possibly associated with similar nearby features 70695 and 70697. Originally interpreted as debris, but reinterpreted as a dark reflector and could be non-ferrous debris or a natural feature.	SSS	Teesside cable route 2013, OFTO 2020	Block C	-
70697	Dark reflector	283273	6065072	A2	2.2	0.1	0.4	-	Distinct dark reflector with shadow but without associated Mag. anomaly, identified during previous phases of work. Associated with a distinct mound in a scour in the MBES data. Possibly associated with similar nearby features 70695 and 70697. Originally interpreted as debris but reinterpreted as a dark reflector and could be non-ferrous debris or a natural feature.	SSS	Teesside cable route 2013	Block C	-
70709	Dark reflector	290407	6065694	A2	1.2	0.9	0.1	-	Elongate, irregular dark reflector with small shadow, identified during previous phases of work. Not identified within the most recent geophysical data and may be buried at present. Possible non-ferrous debris or a natural feature.	SSS	Teesside cable route 2013	Block C	-
70744	Dark reflector	281679	6064856	A2	4.2	0.4	0.3	-	Elongate dark reflector with shadow, identified during previous phases of work. No associated Mag. anomaly. Not identified within the current geophysical assessment and may be buried at present. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS	Teesside cable route 2013	Block C	-
7833	Dark reflector	271423	6063435	A2	3.4	1.3	0.7	-	Distinct, elongate dark reflector with shadow, but without an associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block C	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7588	Dark reflector	270984	6063425	A2	2.1	0.8	0.7	-	Distinct, elongate dark reflector with distinct, irregular shadow. Located in an area of seabed with numerous scattered boulders but appears a different shape to natural features in the area. Visible in the MBES data as a small mound within a small surrounding depression. No associated magnetic anomaly. Could be non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7834	Debris	271059	6063308	A2	3.5	3.0	0.4	98	Fairly distinct mound identified in the MBES data, not very unusual for the area, but more distinct than the many rocks surrounding. Surrounded by a very small depression/scour. Associated with a distinct, medium magnetic dipole. Possible ferrous debris.	MBES	OFTO 2020	Block B	-
7835	Seabed disturbance	270719	6063337	A2	24.4	16.9	0.6	27	Area of seabed disturbance comprising irregular seabed reflectivity and numerous dark reflectors with shadows. Located in an area of seabed with some mobile sediment and scattered natural features. Associated with a small but distinct magnetic dipole, and an area of heightened background magnetic signal. Possible ferrous debris but could be a natural feature containing rocks with high ferrous content.	SSS	OFTO 2020	Block B	-
7589	Seabed disturbance	270583	6063097	A2	4.5	3.7	0.5	-	Small area containing potentially three separate dark reflectors, one without shadow and two with distinct shadows. Located in a generally featureless area of seabed. No associated magnetic anomaly. Could be an area of non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7590	Debris	270511	6062958	A2	2.2	0.5	0.2	-	Distinct, short, linear dark reflector with large shadow, but without an associated magnetic anomaly. Located in a generally featureless area of seabed. Possible non-ferrous debris.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7591	Debris	270348	6062844	A2	1.8	0.8	0.3	14	Curvilinear dark reflector with small shadow, associated with, and joining, two small dark reflectors with shadows. Feature trends approximately E-W, and is associated with a magnetic anomaly at its western end suggesting a possible buried ferrous object at this location. No magnetic anomaly has been identified associated with the rest of the feature. Probable modern fishing gear, potentially lobster pots joined by a length of rope, although has the potential to be UXO based on the knowledge of historic minefields in the area. Dimensions given are for the largest individual dark reflector. Total visible length of the feature is 75 m.	SSS, Mag.	OFTO 2020	Block B	-
7836	Magnetic	270348	6062665	A2	-	-	-	64	Distinct medium magnetic dipole identified on more than one survey line and on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7592	Dark reflector	270120	6062433	A2	2.3	0.9	0.9	44	Large, distinct dark reflector with large shadow and associated with a distinct magnetic dipole, located in an area of generally featureless seabed. Possible ferrous debris, although could be a natural feature with a relatively high iron mineral content.	SSS	OFTO 2020	Block B	-
7837	Magnetic	269176	6061549	A2	-	-	-	188	A large, distinct magnetic dipole identified on more than one survey line and on overlapping data sets. No associated SSS or MBES contacts. Possible part of a magnetic alignment, but potentially indicates ferrous debris that is either buried or without surface expression and retained as a precaution.	Mag., Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7593	Magnetic	268828	6061205	A2	-	-	-	167	Distinct large magnetic dipole identified on one survey line, no associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7838	Debris	268617	6061110	A2	2.4	0.7	0.5	55	Elongate dark reflector with distinct shadow, located in an area of seabed with small natural features. Associated with a distinct magnetic dipole. Possible ferrous debris. Located outside of the current study area.	SSS, Mag., Grad.	OFTO 2020	Block B	-
7594	Magnetic	268764	6061037	A2	-	-	-	15	Small but distinct magnetic dipole identified on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7595	Magnetic	268367	6060697	A2	-	-	-	32	Distinct magnetic dipole identified on one survey line and on overlapping data sets, no associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7839	Debris	268451	6060699	A2	2.5	1.6	0.5	69	Distinct mound, taller and more defined than other similar features in the area. Angular and slightly ridged. A very slight scour is present in the south-east. Associated with a distinct magnetic dipole. Possible ferrous debris.	MBES, Grad.	OFTO 2020	Block B	-
7840	Dark reflector	268008	6060782	A2	1.8	0.9	1.2	-	Large dark reflector with large shadow, located in an area of rocks and poorly defined bedforms. Not covered by Magnetometer data. Could be debris or a natural feature.	SSS	OFTO 2020	Block B	-
7841	Debris	268071	6060732	A2	1.1	0.5	0.7	43	Distinct dark reflector with distinct shadow, located within an area with smaller natural features. Associated with a distinct magnetic dipole. Possible ferrous debris.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7596	Magnetic	268107	6060610	A2	-	-	-	29	Distinct positive magnetic monopole identified on one survey line, and on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7842	Magnetic	268132	6060571	A2	-	-	-	40	Distinct magnetic dipole identified on one survey line and on overlapping data sets. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7843	Magnetic	267628	6060615	A2	-	-	-	28	Distinct magnetic dipole identified on one survey line, no associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7597	Debris	267756	6060513	A2	1.1	0.4	0.9	-	Distinct, short, linear dark reflector with large, distinct shadow. Located in an area with numerous trawl scars. No associated magnetic anomaly. Possible piece of non-ferrous debris.	SSS	OFTO 2020	Block B	-
7598	Dark reflector	267464	6060483	A2	1.1	0.7	0.4	-	Distinct, irregular dark reflector with shadow, possibly with a central depression but this is uncertain. Located in an area of trawl scars. No associated magnetic anomaly. Could be non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7599	Dark reflector	267289	6060372	A2	1.8	0.6	0.6	-	Elongate dark reflector with distinct, irregular shadow. Located in an area with numerous trawl scars. No associated magnetic anomaly. Could be non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7600	Magnetic	267191	6060319	A2	-	-	-	56	Distinct medium magnetic dipole identified on two survey lines, no associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7844	Dark reflector	266718	6060367	A2	1.2	0.4	0.2	-	Irregular, elongate dark reflector with distinct shadow. Located in an area of numerous trawl scars. No associated Mag. anomaly. Possible non-ferrous debris but could be a natural feature.	SSS	OFTO 2020	Block B	-
7601	Dark reflector	266740	6060284	A2	1.1	0.4	0.6	-	Very distinct dark reflector with distinct shadow, located in an area of trawl scars. No associated magnetic anomaly but located close to similar feature 7602. Possible non-ferrous debris but could be a natural feature.	SSS	OFTO 2020	Block B	-
7602	Dark reflector	266754	6060276	A2	3.4	2.0	0.8	-	Very distinct dark reflector with distinct shadow, located in an area of trawl scars. Identified in the MBES data as a small, distinct mound. No associated magnetic anomaly but located close to similar feature 7601. Possible non-ferrous debris but could be a natural feature.	SSS, MBES	OFTO 2020	Block B	-
7603	Debris	266422	6060259	A2	1.4	1.4	0.0	-	Circular dark reflector with central hollow, located in an area of trawl scars. No associated magnetic anomaly. Possible non-ferrous debris, potentially a tyre.	SSS	OFTO 2020	Block B	-
7604	Magnetic	266023	6060147	A2	-	-	-	16	Small but distinct magnetic dipole identified on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7605	Dark reflector	265683	6060025	A2	1.9	0.5	0.2	-	Small, poorly defined, elongate dark reflector with small shadow. Located in an area of trawl scars. No associated magnetic anomaly. Could be non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7845	Magnetic	265566	6060118	A2	-	-	-	116	Large, distinct magnetic dipole identified on more than one survey line. No associated SSS or MBES contacts. Located adjacent to similar anomaly 7846. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7846	Magnetic	265529	6060106	A2	-	-	-	285	Large, distinct magnetic dipole identified on one survey line and on overlapping data sets. No associated SSS or MBES contacts. Located adjacent to similar anomaly 7845. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7606	Magnetic	265058	6059914	A2	-	-	-	44	Distinct magnetic dipole identified on one survey line only but on overlapping data sets. No associated SSS or MBES contacts. Possibly slightly broad for its amplitude but is distinct within the profile. Possible ferrous debris, either buried or without surface expression.	Mag., Grad.	OFTO 2020	Block B	-
7607	Debris	264881	6059964	A2	1.0	0.8	0.4	-	Circular dark reflector with distinct shadow, possibly with central depression. Located in an area of trawl scars. No associated magnetic anomaly. Possible piece of non-ferrous debris, potentially a tyre.	SSS	OFTO 2020	Block B	-
7608	Magnetic	264515	6059973	A2	-	-	-	17	Distinct positive magnetic monopole identified on one survey line only. No associated SSS or MBES contacts. Possibly slightly broad for its amplitude but is distinct within the profile. Possible ferrous debris, either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7609	Magnetic	264299	6059913	A2	-	-	-	26	Distinct magnetic monopole identified on two survey lines and on overlapping data sets. No associated SSS or MBES contacts. Possibly slightly broad for its amplitude but is distinct within the profile and is identified on more than one line. Possibly associated with adjacent anomaly 7610. Possible ferrous debris, either buried or without surface expression, or a natural feature.	Mag., Grad.	OFTO 2020	Block B	-
7610	Magnetic	264338	6059920	A2	-	-	-	16	Distinct positive magnetic monopole identified on one survey line only but on overlapping data sets. No associated SSS or MBES contacts. Possibly slightly broad for its amplitude but is distinct within the profile. Possibly associated with adjacent anomaly 7609. Possible ferrous debris, either buried or without surface expression, or a natural feature.	Mag., Grad.	OFTO 2020	Block B	-
7611	Debris	264172	6060036	A2	1.2	0.4	0.2	19	Distinct dark reflector with large shadow and associated scour. Associated with a small but distinct magnetic dipole. Possibly associated with nearby anomaly 7612, but this is uncertain. Possible ferrous debris.	SSS, MBES, Grad.	OFTO 2020	Block B	-
7612	Dark reflector	264183	6060040	A2	0.7	0.4	0.4	-	Poorly defined dark reflector with small shadow, located within a small depression/scour. Located on the edge of an area of mobile sand and appears different to other natural features in the area. No associated magnetic anomaly. Possibly associated with nearby feature 7611, but this is uncertain. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7847	Debris	263855	6060029	A2	2.0	0.7	0.4	52	Distinct, elongate dark reflector with distinct shadow, located in an area of seabed containing numerous boulders. Associated with a distinct magnetic dipole. Possible ferrous debris.	SSS, Grad.	OFTO 2020	Block B	-
7613	Magnetic	263760	6059969	A2	-	-	-	32	Distinct positive magnetic monopole identified on one survey line only and adjacent to an area of relatively higher background signal. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7614	Magnetic	263563	6060018	A2	-	-	-	26	Distinct magnetic dipole only identified on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7615	Magnetic	262704	6059965	A2	-	-	-	68	Distinct medium magnetic dipole identified on more than one survey line, but without associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7616	Debris	262599	6060002	A2	0.9	0.5	0.3	-	Rounded dark reflector with shadow, and possible central depression. No associated magnetic anomaly. Located in an area of natural seabed disturbance, but possible piece of debris, potentially a tyre.	SSS	OFTO 2020	Block B	-
7617	Magnetic	262331	6060052	A2	-	-	-	21	Relatively small but distinct magnetic dipole only identified on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7618	Magnetic	261769	6060144	A2	-	-	-	28	A small, distinct dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7848	Dark reflector	261240	6060297	A2	3.0	1.0	0.6	-	Large, distinct dark reflector with large shadow, located in a rocky area of the seabed. No definitely corresponding MBES or Mag. contact, but a mound identified at this location in the MBES data. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS	OFTO 2020	Block B	-
7849	Magnetic	261158	6060254	A2	-	-	-	35	A small, sharp and distinct negative magnetic monopole with peak and trough on one survey line. No corresponding SSS or MBES contact, but seen on the MBES data as a small, slightly elongated mound. Possible ferrous debris.	Mag.	OFTO 2020	Block B	-
7619	Dark reflector	260992	6060207	A2	3.0	1.3	1.8	-	Large, distinct dark reflector with large, distinct shadow. Anomalous in an area of seabed with some smaller boulders, but otherwise clear of natural features. Data is possibly stretched, making feature appear more interesting than it is. No corresponding MBES or Mag. contact but seen on the MBES data as a fairly distinct mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7850	Magnetic	260909	6060074	A2	-	-	-	76	A medium, distinct positive magnetic monopole with peak and trough over two survey lines. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7620	Magnetic	260846	6060122	A2	-	-	-	143	A large, very distinct positive monopole with peak and trough over two survey lines. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7621	Magnetic	260231	6060143	A2	-	-	-	40	A small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contact. Distinct on the profile, but also quite broad. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7622	Debris	260054	6060206	A2	9.6	0.2	0.2	-	Distinct, short linear dark reflector with distinct shadow, located in an area of small boulders and mobile bedforms. On a slightly different alignment to natural features in the area. No corresponding MBES or Mag. contact. May represent possible non-ferrous linear debris or could be an exposed section of cable.	SSS	OFTO 2020	Block B	-
7623	Magnetic	260020	6060227	A2	-	-	-	735	A very large negative monopole with peak and trough over two survey lines. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7624	Magnetic	259776	6060200	A2	-	-	-	527	A very large, sharp dipole with peak and trough on one survey line. Not seen on adjacent line of data to the north. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7851	Magnetic	259500	6060238	A2	-	-	-	90	A medium, sharp magnetic dipole with peak and trough over two survey lines. No corresponding MBES or Mag. contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7625	Dark reflector	259168	6060189	A2	1.4	1.0	0.9	-	Distinct dark reflector with large shadow, located in an area of numerous boulders. Much larger than the background natural features, and possibly related to 7626 and 7627. No corresponding MBES or Mag. contact but seen on the MBES data as a distinct mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7626	Debris	259162	6060190	A2	2.7	1.7	-	-	Possible rectangular dark reflector, possibly with small shadow but this is uncertain. Located in an area containing numerous natural features but appears different. Located immediately adjacent to similar feature 7627. No corresponding MBES or Mag. contact but seen on the MBES data as a distinct mound. May represent possible non-ferrous debris.	SSS	OFTO 2020	Block B	-
7627	Debris	259161	6060189	A2	2.8	1.4	-	-	Possible rectangular dark reflector, possibly with small shadow but this is uncertain. Located in an area containing numerous natural features but appears different. Located immediately adjacent to similar feature 7626. No corresponding MBES or Mag. contact but seen on the MBES data as a distinct mound. May represent possible non-ferrous debris.	SSS	OFTO 2020	Block B	-
7852	Dark reflector	259141	6060238	A2	2.5	1.9	0.4	-	Large, rounded dark reflector with a bright rounded shadow. Located in an area of numerous natural features but appears different to the natural background. No corresponding MBES or Mag. contact but seen on the MBES data as a small mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7853	Magnetic	259115	6060021	A2	-	-	-	22	A small, sharp positive magnetic monopole with peak and trough on one survey line. This is quite distinct on the line of data. No corresponding SSS or MBES contact. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7628	Dark reflector	258412	6060101	A2	2.5	0.9	1.0	-	Distinct dark reflector with large shadow. This is located in an area of numerous boulders and possible geological outcrops. No corresponding MBES or Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7854	Magnetic	258245	6060158	A2	-	-	-	57	A medium, sharp magnetic dipole with peak and trough over two survey lines. No definite corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris or a natural feature.	Mag.	OFTO 2020	Block B	-
7629	Magnetic	258149	6060051	A2	-	-	-	30	A small, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7855	Magnetic	257989	6059935	A2	-	-	-	11	A small, slightly broad, but distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7856	Magnetic	257884	6060130	A2	-	-	-	22	A small, sharp and distinct negative magnetic monopole seen on one survey line. Located within an area of increased magnetic response. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7857	Magnetic	257471	6060105	A2	-	-	-	28	A small, very distinct magnetic dipole with peak and trough on one survey line. A slight secondary peak is seen on this feature and it is slightly broad. No definite corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7630	Dark reflector	257344	6060002	A2	1.6	1.5	1.2	-	Large, distinct dark reflector with large shadow. This is located in an area of seabed with numerous smaller natural features and some mobile sand. No corresponding MBES or Mag. contacts, but seen on the MBES data as a small, distinct mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7858	Mound	257214	6059788	A2	4.2	2.3	1.1	-	Angular mound identified in the MBES data, quite tall and prominent for the area. No corresponding SSS or Mag. contact. Possible non-ferrous debris or a natural feature.	MBES	OFTO 2020	Block B	-
7631	Magnetic	257189	6060035	A2	-	-	-	23	A small, sharp positive monopole with peak and trough on one survey line. This feature is very distinct. No corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris.	Mag.	OFTO 2020	Block B	-
7859	Magnetic	257177	6060076	A2	-	-	-	22	A small, sharp dipole with peak and trough on one survey line. This anomaly is distinct. No definite corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7632	Magnetic	257136	6059984	A2	-	-	-	31	A small, sharp dipole with peak and trough on one survey line. Fairly distinct. No corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7633	Magnetic	257095	6059926	A2	-	-	-	35	A small positive monopole with peak and trough on one survey line. This is a little broad, but very distinct. No corresponding SSS or MBES contacts, but seen on the MBES data as a small, distinct mound. Possible ferrous debris.	Mag.	OFTO 2020	Block B	-
7634	Magnetic	257046	6059975	A2	-	-	-	13	A small, sharp dipole with peak and trough on one survey line. Similar responses to this anomaly are noted in the area. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7860	Magnetic	256696	6060051	A2	-	-	-	26	A small, sharp and distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7861	Magnetic	256257	6059824	A2	-	-	-	121	A large, sharp dipole with peak and trough over two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7635	Magnetic	256244	6059966	A2	-	-	-	21	A small dipole with peak and trough on one survey line. This is slightly broad. No corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7862	Magnetic	256093	6059811	A2	-	-	-	10	A small, distinct negative monopole seen on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7636	Magnetic	255860	6059942	A2	-	-	-	14	A small negative monopole seen on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7637	Magnetic	255627	6059962	A2	-	-	-	22	A small dipole with peak and trough on one survey line. This appears slightly broad but is nonetheless distinct. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7638	Magnetic	255551	6059804	A2	-	-	-	42	A small, sharp and distinct positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7863	Dark reflector	255490	6059992	A2	1.2	1.0	0.5	-	Distinct dark reflector with large shadow. This is unusually large for the area, which is characterised by mobile bedforms and numerous boulders. This is located immediately adjacent to similar feature 7864. No corresponding Mag. contacts but seen on the MBES data as a small mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7864	Dark reflector	255492	6059992	A2	1.4	0.8	0.8	-	Distinct dark reflector with a large and broad shadow. This is unusually large for the area, which contains mobile bedforms and numerous boulders. Located immediately adjacent to similar feature 7863. No corresponding Mag. contacts but seen on the MBES data as a small mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7865	Magnetic	255300	6059897	A2	-	-	-	29	A small positive monopole with peak and trough on one survey line. Possibly related to geological responses seen to the south, but this is uncertain. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7866	Magnetic	254690	6059722	A2	-	-	-	31	A small positive monopole with peak and trough picked on one survey line and seen over three. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression, or a natural feature. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7639	Magnetic	254661	6059551	A2	-	-	-	13	A small, distinct dipole with peak and trough over two survey lines. No corresponding SSS or MBES contacts but seen on the MBES data near a small mound. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7867	Debris field	254229	6059579	A2	7.8	6.5	1.0	-	Area of elongate dark reflectors with distinct shadows. Possible debris field as features have fairly significant height for the area; however, located in an area of numerous boulders so could be stretched natural features. No corresponding MBES or Mag. contact but seen on the MBES data as a cluster of small mounds. May represent possible non-ferrous debris, or a natural feature.	SSS	OFTO 2020	Block B	-
7868	Mound	254074	6059586	A2	5.6	2.1	0.1	-	Slightly curvilinear mound whose shape is anomalous for the area. Located in an area of seabed with many rocks surrounding. No corresponding SSS or Mag. contacts. Possible non-ferrous debris or a natural feature.	MBES	OFTO 2020	Block B	-
7640	Dark reflector	254092	6059449	A2	1.8	0.9	1.2	-	Distinct dark reflector with large, distinct shadow. Anomalous due to its size, located in an area of numerous smaller natural features and small mobile bedforms. No corresponding MBES or Mag. contact but seen on the MBES data as a small mound. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
7869	Magnetic	254033	6059520	A2	-	-	-	13	A small dipole with peak and trough over two survey lines. Seen on three lines of data. No corresponding SSS or MBES contacts but seen on the MBES data near a small mound. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7870	Magnetic	254018	6059514	A2	-	-	-	63	A medium, sharp dipole with peak and trough picked on one survey line, observed on two lines. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7871	Magnetic	253838	6059454	A2	-	-	-	31	A small positive monopole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression. Retained as a precaution.	Mag.	OFTO 2020	Block B	-
7641	Magnetic	253707	6059278	A2	-	-	-	28	A small, sharp dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts but seen on the MBES data as a small mound. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7872	Magnetic	253802	6059431	A2	-	-	-	178	A large, distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible significant piece of ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7873	Magnetic	256046	6059793	A2	-	-	-	29	A small magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7874	Magnetic	264073	6059928	A2	-	-	-	56	A distinct medium magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7875	Magnetic	264003	6059908	A2	-	-	-	18	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7876	Magnetic	264130	6059880	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7877	Magnetic	264222	6059985	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7878	Magnetic	264329	6059899	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7879	Magnetic	264478	6059994	A2	-	-	-	102	Large, distinct magnetic dipole with peak and trough on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7880	Magnetic	264901	6059943	A2	-	-	-	56	A distinct medium magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7881	Magnetic	265078	6059879	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7882	Magnetic	265196	6059960	A2	-	-	-	56	A distinct medium magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7883	Magnetic	265161	6059847	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7884	Magnetic	265558	6060062	A2	-	-	-	22	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7885	Magnetic	265637	6060049	A2	-	-	-	33	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7886	Magnetic	265655	6060006	A2	-	-	-	222	A large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7887	Magnetic	265666	6060004	A2	-	-	-	76	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7888	Magnetic	265663	6060013	A2	-	-	-	66	A distinct medium magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7889	Magnetic	265739	6060041	A2	-	-	-	21	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7890	Magnetic	265813	6060034	A2	-	-	-	35	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7891	Magnetic	265863	6059994	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7892	Magnetic	265875	6060000	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7893	Magnetic	265892	6060118	A2	-	-	-	12	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7894	Magnetic	265981	6060055	A2	-	-	-	35	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7895	Magnetic	266128	6060044	A2	-	-	-	142	A large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7896	Magnetic	266142	6060202	A2	-	-	-	25	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7897	Magnetic	266319	6060196	A2	-	-	-	38	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7898	Magnetic	267051	6060418	A2	-	-	-	108	A large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7899	Magnetic	267081	6060405	A2	-	-	-	29	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7900	Magnetic	267416	6060341	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7901	Magnetic	267480	6060466	A2	-	-	-	18	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7902	Magnetic	267504	6060433	A2	-	-	-	31	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7903	Magnetic	267692	6060448	A2	-	-	-	34	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7904	Magnetic	267706	6060599	A2	-	-	-	43	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7905	Magnetic	267802	6060527	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7906	Magnetic	267789	6060465	A2	-	-	-	55	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7907	Magnetic	267859	6060483	A2	-	-	-	71	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7908	Magnetic	268152	6060505	A2	-	-	-	48	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7909	Magnetic	268225	6060669	A2	-	-	-	15	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7910	Magnetic	268265	6060555	A2	-	-	-	13	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7911	Magnetic	268283	6060754	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7912	Magnetic	268329	6060713	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7913	Magnetic	268503	6060694	A2	-	-	-	33	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7914	Magnetic	268357	6060872	A2	-	-	-	146	A large, distinct magnetic dipole with peak and trough picked on two survey lines. Complex anomaly, and partially obscured by signal from nearby pipeline. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7915	Magnetic	268675	6060756	A2	-	-	-	51	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7916	Magnetic	268673	6060815	A2	-	-	-	48	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7917	Magnetic	268558	6061019	A2	-	-	-	60	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7918	Magnetic	268607	6061030	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7919	Magnetic	268668	6061134	A2	-	-	-	58	A distinct medium positive magnetic monopole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7920	Magnetic	268787	6061084	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7921	Magnetic	268804	6061094	A2	-	-	-	43	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7922	Magnetic	268965	6061239	A2	-	-	-	65	A distinct medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7923	Magnetic	269022	6061425	A2	-	-	-	47	A small but distinct positive magnetic monopole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7924	Magnetic	269077	6061392	A2	-	-	-	38	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7925	Magnetic	269109	6061426	A2	-	-	-	41	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7926	Magnetic	269238	6061539	A2	-	-	-	35	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible part of a magnetic alignment, but potentially indicates ferrous debris that is either buried or without surface expression and retained as a precaution.	Grad.	OFTO 2020	Block B	-
7927	Magnetic	269465	6061744	A2	-	-	-	37	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7928	Magnetic	269354	6061818	A2	-	-	-	39	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Located close to similar feature 7929, and possibly related.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7929	Magnetic	269366	6061827	A2	-	-	-	65	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression. Located close to similar feature 7928, and possibly related.	Grad.	OFTO 2020	Block B	-
7930	Magnetic	269533	6062011	A2	-	-	-	106	A large, distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7931	Magnetic	269596	6061995	A2	-	-	-	43	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7932	Magnetic	269733	6062203	A2	-	-	-	50	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7933	Magnetic	269829	6062132	A2	-	-	-	29	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7934	Magnetic	269818	6062253	A2	-	-	-	112	A large, distinct magnetic dipole with peak and trough picked on two survey lines. Complex anomaly, and partially obscured by signal from nearby pipeline. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7935	Magnetic	269850	6062314	A2	-	-	-	23	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7936	Magnetic	270205	6062314	A2	-	-	-	272	A large, distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7937	Magnetic	270143	6062397	A2	-	-	-	86	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7938	Magnetic	270103	6062535	A2	-	-	-	33	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7939	Magnetic	270135	6062585	A2	-	-	-	42	A small but distinct positive magnetic monopole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7940	Magnetic	270200	6062576	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7941	Magnetic	270257	6062558	A2	-	-	-	24	A small but distinct magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7942	Magnetic	270151	6062632	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7943	Magnetic	270187	6062635	A2	-	-	-	31	A small but distinct positive magnetic monopole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7944	Magnetic	270757	6062956	A2	-	-	-	75	A medium magnetic dipole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7945	Magnetic	270761	6063068	A2	-	-	-	33	A small but distinct positive magnetic monopole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7946	Magnetic	270754	6063103	A2	-	-	-	25	A small but distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7947	Magnetic	270923	6062830	A2	-	-	-	125	A large, distinct magnetic dipole with peak and trough picked on one survey line. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7948	Magnetic	271256	6062955	A2	-	-	-	32	A small but distinct positive magnetic monopole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block B	-
7949	Magnetic	270814	6063222	A2	-	-	-	25	A small but distinct magnetic dipole with peak and trough picked on two survey lines and on overlapping data sets. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7950	Magnetic	270866	6063236	A2	-	-	-	29	A small but distinct positive magnetic monopole with peak and trough picked on two survey lines. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7951	Magnetic	270966	6063314	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough picked on two survey lines and on overlapping data sets. No corresponding SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Grad.	OFTO 2020	Block B	-
7952	Magnetic	268370	6060497	A2	-	-	-	48	Relatively broad but distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts	Mag.	OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7953	Dark reflector	271105	6062828	A2	3.0	2.0	0.4	-	Distinct, elongate dark reflector with shadow, but without associated Mag. anomaly. Better defined than other natural features in the area. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block B	-
70663	Magnetic	265537	6060107	A2	-	-	-	268	Large, distinct magnetic dipole identified on one survey line and on overlapping data sets. No associated SSS or MBES contacts. Located adjacent to similar anomalies 7845 and 7846. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag., Grad.	Teesside cable route 2013, OFTO 2020	Block B	-
70665	Dark reflector	267147	6060332	A2	9.5	2.4	0.7	-	Elongate dark reflector with shadow and small scour, identified during previous phases of work. Visible in the current MBES data as a distinct mound, unusual for the area. This is set within a fairly large scour, which is also unusual for the area. No associated magnetic anomaly. Possible non-ferrous debris or a natural feature.	SSS, MBES	Teesside cable route 2013, OFTO 2020	Block B	-
70667	Debris	267428	6060380	A2	4.1	0.8	0.8	3	Thin, solid linear dark reflector, quite wide and with a large and bright shadow, identified during previous phases of work. Located on a sandy and gravelly area of the seabed. Associated with a very small but distinct magnetic monopole. Possible debris - not identified within the most recent dataset but may be buried at present and retained as a precaution.	SSS	Teesside cable route 2013	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70669	Mound	268539	6060852	A2	15.1	10.9	1.0	13	Irregular, elongate area of dark and bright reflectors with shadow, possibly indicating objects and associated scour. Associated with a small magnetic anomaly. Identified during previous phases of work, but not definitively within the current data set. However, a low irregular mound has been identified at this location within the MBES data. Originally interpreted as three separate anomalies, but now thought to represent the same feature. Possible ferrous debris but could represent a natural feature with a relatively high iron mineral content.	SSS, Mag.	Teesside cable route 2013	Block B	-
70672	Magnetic	269293	6061534	A2	-	-	-	244	A large, distinct magnetic dipole with peak and trough picked on a number of survey lines, and within both previous assessments and the current data set. No corresponding SSS or MBES contacts. Possible part of a magnetic alignment, but potentially indicates ferrous debris that is either buried or without surface expression and retained as a precaution.	Mag., Grad.	Teesside cable route 2013, OFTO 2020	Block B	-
70801	Debris field	260419	6060355	A2	18.6	4.5	0.5	-	Large oval shaped seafloor disturbance, visible as dark reflector with possible shadow or located in a depression, identified during previous phases of work. Visible in the current data set as an elongate possible debris field comprising numerous poorly defined dark reflectors with shadows. Located in an area of numerous boulders. No corresponding MBES or Mag. contact but seen on the MBES data as an area of irregular mounds. Possible non-ferrous debris or a natural feature. Retained as a precaution.	SSS, Backscatter	Teesside cable route 2013, OFTO 2020	Block B	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7954	Recorded wreck	260157	6059990	A3	-	-	-	-	Recorded location of the wreck of an unidentified steam trawler, first discovered in 1989. Last surveyed in 2017, found to be orientated approximately north-south with dimensions measuring 61.0 x 13.8 x 6.4 m. It has not been identified within the current geophysical data, but an area of MBES data over the location appears to be missing, suggesting the wreck was within the data but edited out prior to its submission to Wessex Archaeology. Subsequent conversations with the survey company confirm a data export error removed the data points from this location, and that the wreck is present at the location. The wreck site was not directly covered by either SSS or Mag. data, so further comment on the status of the wreck cannot be made at this time. However, as the UKHO record a previous survey undertaken in 2017, it is expected that the information present within the UKHO record is accurate (UKHO 6398).	-	OFTO 2020	Block B	6398 (UKHO)
70841	Recorded obstruction	264774	6059835	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the HER record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	937035 (NRHE)

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70842	Recorded obstruction	264663	6059853	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the HER record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	2254 (HER)
70849	Recorded obstruction	263205	6060140	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the HER record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	2217 (HER)
70850	Recorded obstruction	263100	6060165	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the NRHE record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	936997 (NRHE)
70856	Recorded obstruction	256851	6059882	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the NRHE record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	936986 (NRHE)

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70857	Recorded obstruction	256742	6059906	A3	-	-	-	-	Unidentified seabed obstruction reported by fishermen (fisherman's fastener), possibly indicative of wreckage or a submerged feature. Present in the NRHE record, but not recorded by UKHO. Not identified in the geophysical data, either in the current assessment or during previous phases of work. Retained as a precaution.	-	Teesside cable route 2013	Block B	936891 (NRHE)
7955	Debris	249775	6058478	A1	5.4	1.3	0.8	-	A small linear mound, irregular in profile and orientated in opposition to surrounding seabed features, identified in the MBES data. No definitely associated Mag. anomaly, although any anomaly would be masked by the signal from nearby wreck 70657. Located 10 m SSE from wreck 70657, and possibly associated debris.	MBES	OFTO 2020	Block A	-
7956	Debris field	249765	6058456	A1	24.0	13.3	0.7	-	Relatively poorly defined area of irregular dark reflectors with shadows, including some possible short linear features. Generally relatively low lying, apart from a single larger upstanding dark reflector. No definitely associated Mag. anomaly, although any anomaly would be masked by the signal from nearby wreck 70657. Located approximately 30m to the south of the wreck of the HMS Ruthin Castle, and is potentially an associated and previously unidentified debris field. Diver records from the wreck (UKHO) suggest the section forward of the boiler is badly degraded, and this debris field may represent part of the forward section of the vessel. However, visual inspection would be needed to confirm this.	SSS	OFTO 2020	Block A	6058 (UKHO)

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70657	Wreck	249765	6058493	A1	14.9	7.5	3.5	50579	Wreck site of the armed trawler HMS Ruthin Castle, recorded in the UKHO record and identified during previous phases of work. Visible in the SSS data as a N-S trending irregular area of debris, with a single distinct large dark reflector with height towards the southern edge. This is interpreted from the MBES data as a possible intact boiler. Appears very broken up with little structure remaining, which correlates with the known state of the vessel from dive records (UKHO). Some additional pieces of possible associated debris (7955, 7336 and 7337) situated within 30m to the ESE. A further large patch of debris, 7956, has been identified approximately 30 m to the south. This has not been identified within the previous geophysical data and may be further remains of the wreck.	SSS, MBES, Mag.	Teesside cable route 2013, OFTO 2020	Block A	6058 (UKHO)
7957	Magnetic	242590	6058556	A2	-	-	-	28	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7958	Dark reflector	242697	6058617	A2	1.7	1.0	0.0	-	One of three distinct, sub-rounded dark reflectors identified within the MBES data as small depressions. No associated Mag. anomaly. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7959	Dark reflector	242704	6058614	A2	1.3	1.1	0.0	-	One of three distinct, sub-rounded dark reflectors identified within the MBES data as small depressions. No associated Mag. anomaly. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7960	Dark reflector	242720	6058617	A2	1.4	1.2	0.1	-	One of three distinct, sub-rounded dark reflectors identified within the MBES data as small depressions. No associated Mag. anomaly. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7961	Magnetic	242802	6058456	A2	-	-	-	68	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7962	Magnetic	242922	6058430	A2	-	-	-	10	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression, or could be a natural feature.	Mag.	OFTO 2020	Block A	-
7963	Magnetic	243128	6058348	A2	-	-	-	90	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7964	Dark reflector	243154	6058323	A2	0.9	0.6	0.1	-	Small, angular dark reflector with angular shadow and some slight scour, located within small sand ripples. No associated Mag. anomaly. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7965	Dark reflector	243220	6058053	A2	1.5	0.3	0.0	-	Thin, short dark reflector with no real discernible shadow and within slight depression. No associated Mag. anomaly. Possible non-ferrous debris but could be noise in the water column.	SSS	OFTO 2020	Block A	-
7966	Magnetic	243349	6057928	A2	-	-	-	41	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7967	Magnetic	243434	6057947	A2	-	-	-	58	A medium positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7968	Magnetic	243537	6058553	A2	-	-	-	177	A large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES or SSS contacts. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7969	Dark reflector	244141	6058590	A2	1.5	0.9	0.1	-	Small rounded dark reflector with distinct shadow, appears to have a central depression. No associated Mag. anomaly. Located close to an area of geological outcropping. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7970	Magnetic	244075	6058374	A2	-	-	-	119	A large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES or SSS contacts. Possible significant piece of ferrous debris without surface expression. Unlikely to be buried, as bedrock outcrops at this location.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7971	Magnetic	244167	6058019	A2	-	-	-	327	A large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES or SSS contacts. Possible significant piece of ferrous debris without surface expression. Unlikely to be buried, as bedrock outcrops at this location.	Mag.	OFTO 2020	Block A	-
7972	Dark reflector	244269	6058450	A2	1.3	1.3	0.1	-	Small rounded dark reflector with distinct shadow, appears to have a central depression. No associated Mag. anomaly. Located close to an area of geological outcropping. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7973	Magnetic	244502	6058453	A2	-	-	-	39	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7974	Magnetic	244268	6058133	A2	-	-	-	14	A small but distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible small piece of ferrous debris, either buried or without surface expression, or a natural feature.	Mag.	OFTO 2020	Block A	-
7975	Magnetic	244322	6058084	A2	-	-	-	33	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7976	Magnetic	244568	6057926	A2	-	-	-	43	A small, distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7977	Magnetic	244732	6058522	A2	-	-	-	36	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7978	Magnetic	244799	6058424	A2	-	-	-	203	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible significant piece of ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7979	Magnetic	244849	6058479	A2	-	-	-	52	A medium negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7980	Magnetic	244649	6058229	A2	-	-	-	54	A medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7981	Dark reflector	244678	6058150	A2	0.9	0.8	0.1	-	Small rounded dark reflector with distinct shadow, appears to have a central depression. No associated Mag. anomaly. Located close to an area of geological outcropping. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7982	Dark reflector	244732	6058122	A2	1.2	1.2	0.1	-	Small rounded dark reflector with distinct shadow, appears to have a central depression. No associated Mag. anomaly. Located close to an area of geological outcropping. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7983	Magnetic	244988	6058551	A2	-	-	-	36	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7984	Magnetic	245097	6058372	A2	-	-	-	30	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7985	Dark reflector	245183	6057935	A2	1.5	0.9	0.1	-	Small rounded dark reflector with slight shadow, appears to have a central depression. No associated Mag. anomaly. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7986	Magnetic	245166	6057903	A2	-	-	-	34	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7987	Dark reflector	245525	6058487	A2	1.5	1.2	1.5	-	Distinct, sub rounded dark reflector with very tall bright shadow, located in an area of geological outcrop. Identified on the MBES data as a distinct, tall, narrow mound. No associated Mag. anomaly. Possibly part of the natural geological outcrop in the area but is much larger than other surrounding features and may be non-ferrous debris. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7988	Magnetic	245470	6058371	A2	-	-	-	32	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Within a wide band of numerous magnetic anomalies created by geological outcrop at this location but looks distinct from other natural magnetic signals in the area. Possible ferrous debris without surface expression. Burial unlikely due to geological outcrop.	Mag.	OFTO 2020	Block A	-
7989	Dark reflector	245592	6058338	A2	2.9	1.8	1.5	-	Distinct large dark reflector seen on the edge of the sonar range, located in an area of geological outcrop. Identified on the MBES data as a distinct, tall, narrow mound. No associated Mag. anomaly. Possibly part of the natural geological outcrop in the area but is much larger than other surrounding features and may be non-ferrous debris. Retained as a precaution.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7990	Dark reflector	245338	6058257	A2	1.6	1.5	0.1	-	Small rounded dark reflector with distinct shadow, appears to have a central depression. No associated Mag. anomaly. Located close to an area of geological outcropping. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7991	Dark reflector	245275	6058155	A2	1.2	0.3	0.0	-	Small, angular dark reflector with angular shadow, located in an area of generally featureless seabed. No definitely associated Mag. anomaly, although possibly related to anomaly 7992 located approximately 20m to the south. Possible debris or a natural feature.	SSS	OFTO 2020	Block A	-
7992	Magnetic	245270	6058135	A2	-	-	-	25	A small magnetic dipole with peak and trough on one survey line. No definite associated SSS or MBES contacts but may be related to anomaly 7991 located approximately 20m to the north. Possible ferrous debris.	Mag.	OFTO 2020	Block A	-
7993	Magnetic	245530	6058100	A2	-	-	-	15	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7994	Magnetic	245618	6058025	A2	-	-	-	43	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7995	Magnetic	245828	6058025	A2	-	-	-	17	A small, complex magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7996	Dark reflector	245981	6057893	A2	1.2	0.8	0.1	-	Small rounded dark reflector with slight shadow, appears to have a central depression. No associated Mag. anomaly. Similar to other anomalies identified within the area. Possible anthropogenic disturbance, e.g. anchor pull-out pits, or modern debris, although this cannot be confirmed without visual inspection. Retained as a precaution.	SSS	OFTO 2020	Block A	-
7997	Dark reflector	245921	6058483	A2	4.5	0.2	0.1	-	Short, linear dark reflector with small shadow, identified on more than one survey line. No associated Mag. anomaly. Located in an area of outcropping geology. Possible non-ferrous debris or could be part of the geological outcrop.	SSS	OFTO 2020	Block A	-
7998	Magnetic	246050	6058169	A2	-	-	-	57	A distinct medium magnetic dipole with peak and trough on one survey line. No definite associated SSS or MBES contacts, although small bedrock mound identified at this location in the MBES data. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7999	Dark reflector	246098	6058112	A2	1.3	0.3	0.1	-	Small, angular dark reflector with small shadow, situated within a surrounding area of low reflectivity, possibly a broad, shallow depression. No associated Mag. anomaly, and too small to be imaged in the MBES data. Possible non-ferrous debris but could be a previous geotechnical sampling location. retained as a precaution.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7300	Dark reflector	246401	6058367	A2	2.8	2.1	1.4	-	Distinct, elongate dark reflector with large shadow, located within an area of geological outcrop and scattered pockets of mobile sand. Identified in the MBES data as a distinct elongate mound. No associated Mag. anomaly. Possibly part of the natural geological outcrop in the area but is much larger than other surrounding features and may be non-ferrous debris. Retained as a precaution.	SSS, MBES	OFTO 2020	Block A	-
7301	Magnetic	246209	6058324	A2	-	-	-	47	A small but distinct positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7302	Mound	246381	6058194	A2	3.0	2.1	1.5	-	A very distinct mound slightly elongate in plan, with steep sides. This is surrounded by low scattered rocks in an area of geological outcrops. No associated Mag. anomaly. Possibly part of the natural geological outcrop in the area but is much larger than other surrounding features and may be non-ferrous debris. Retained as a precaution.	MBES	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7303	Magnetic	246286	6058051	A2	-	-	-	35	A small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7304	Magnetic	246411	6057920	A2	-	-	-	52	A distinct medium magnetic dipole with peak and trough on two survey lines. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop. Potentially associated with nearby anomaly 7305, but this is uncertain.	Mag.	OFTO 2020	Block A	-
7305	Magnetic	246430	6057904	A2	-	-	-	53	A distinct medium negative magnetic monopole with peak and trough on one survey line. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop. Potentially associated with nearby anomaly 7304, but this is uncertain.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7306	Magnetic	246506	6057902	A2	-	-	-	14	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7307	Magnetic	247012	6058295	A2	-	-	-	73	A distinct medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7308	Dark reflector	247128	6058400	A2	3.0	0.3	0.1	-	Short, straight, linear dark reflector with small shadow. No associated MBES or Mag. Contact. Possible non-ferrous debris but located in an area of bedrock outcrop so may be natural.	SSS	OFTO 2020	Block A	-
7309	Magnetic	246799	6058252	A2	-	-	-	26	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7310	Magnetic	246782	6058170	A2	-	-	-	94	A distinct medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7311	Mound	246800	6057921	A2	2.8	1.5	1.2	75	A distinct mound with a double peak and slight scour, identified in the MBES data. Associated with a distinct, medium magnetic dipole, with peak and trough on one survey line. Possible ferrous debris but is situated in an area of bedrock outcrop and may be a natural bedrock feature with a relatively high percentage of iron mineral content. Retained as a precaution.	MBES, Mag.	OFTO 2020	Block A	-
7312	Magnetic	247077	6057945	A2	-	-	-	54	A medium but distinct magnetic dipole with peak and trough on one survey line. No definitely associated SSS or MBES contacts, but a small mound identified in the MBES data at this location. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7313	Magnetic	247371	6058503	A2	-	-	-	84	A medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7314	Magnetic	247461	6058273	A2	-	-	-	131	A large magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7315	Magnetic	247692	6058225	A2	-	-	-	30	A small but distinct magnetic dipole with peak and trough on one survey line. No definitely associated SSS or MBES contacts, but a small mound identified on the MBES data at this location. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7316	Magnetic	247385	6057979	A2	-	-	-	19	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located within a band of anomalies associated with a broad area of rock outcrop at this location. However, looks more distinct than surrounding anomalies, and potentially represents ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7317	Magnetic	247742	6057985	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7318	Magnetic	247762	6057944	A2	-	-	-	30	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7319	Dark reflector	247950	6058360	A2	1.6	0.4	0.4	-	Elongate, irregular dark reflector with irregular shadow, located in an area of rocks. No associated Mag. Or MBES contacts. Possible non-ferrous debris but could be a natural feature.	SSS	OFTO 2020	Block A	-
7320	Magnetic	247934	6058168	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7321	Magnetic	247962	6058101	A2	-	-	-	22	A small but distinct negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression or could be a natural feature. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7322	Debris	247962	6057948	A2	4.7	4.0	1.8	198	Large, distinct mound roughly squared in plan and with fairly steep, straight sides. Present in an area of seabed with geological outcrops and surface rocks but is much larger than the surrounding natural features. Associated with a large, distinct positive magnetic monopole. Probable piece of ferrous debris.	MBES, Mag.	OFTO 2020	Block A	-
7323	Magnetic	248211	6058480	A2	-	-	-	51	A distinct medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7324	Magnetic	248375	6058370	A2	-	-	-	39	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7325	Magnetic	248396	6058341	A2	-	-	-	31	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7326	Magnetic	248366	6058002	A2	-	-	-	19	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7327	Magnetic	248609	6058330	A2	-	-	-	26	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7328	Magnetic	248639	6058322	A2	-	-	-	77	A medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7329	Magnetic	248583	6058195	A2	-	-	-	30	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7330	Magnetic	248483	6057861	A2	-	-	-	24	A small, complex magnetic dipole with peak and trough on two survey lines. No definitely associated SSS or MBES contacts, but a small mound identified on the MBES at this location. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7331	Magnetic	249066	6058437	A2	-	-	-	537	Distinct, very large positive magnetic monopole identified on more than one survey line. Located approximately 50m north of the northern end of linear debris 7332 and may be related. Possible significant ferrous debris without surface expression, burial unlikely at this location due to bedrock outcrop.	Mag.	OFTO 2020	Block A	-
7332	Debris	249079	6058352	A2	68.0	0.5	0.1	31	Distinct N-S trending linear dark reflector with small, distinct shadow. Associated with distinct magnetic anomalies along its length, and 50m south of large magnetic anomaly 7331. Possible modern fishing gear, although has the potential to be UXO based on the knowledge of historic minefields in the area.	SSS, Mag.	OFTO 2020	Block A	-
7333	Magnetic	249077	6058279	A2	-	-	-	51	Distinct, medium positive magnetic monopole, without associated SSS or MBES contacts. Located between debris features 7332 and 7334 and may indicated further debris between the two without surface expression.	Mag.	OFTO 2020	Block A	-
7334	Debris	249082	6058247	A2	24.1	0.3	0.1	-	N-S trending linear dark reflector with small, distinct shadow, but without an associated magnetic anomaly. Possibly related to similar linear feature 7332 located approximately 60m to the north. Possible modern fishing gear, although has the potential to be UXO based on the knowledge of historic minefields in the area.	SSS	OFTO 2020	Block A	-
7335	Dark reflector	249421	6058290	A2	1.9	1.3	2.7	-	Distinct dark reflector with large shadow extending beyond the edge of the SSS range, located in an area of bedrock outcrop. No associated Mag. anomaly, identified in the MBES data as a distinct, steep sided mound. Possible non-ferrous debris but could be a natural feature.	SSS	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7336	Dark reflector	249791	6058487	A2	2.8	1.0	0.3	-	Distinct, irregular dark reflector with shadow. No definitely associated ag. Anomaly, but any anomaly would be masked by the signal from nearby wreck 70657. Possible wreck debris but could be a natural feature.	SSS	OFTO 2020	Block A	-
7337	Dark reflector	249794	6058482	A2	3.9	0.9	0.4	-	Distinct, irregular dark reflector with shadow. No definitely associated Mag. anomaly, but any anomaly would be masked by the signal from nearby wreck 70657. Possible wreck debris but could be a natural feature.	SSS	OFTO 2020	Block A	-
7338	Magnetic	249683	6058436	A2	-	-	-	24	A small positive magnetic monopole with peak and trough on one survey line, superimposed on the larger anomaly associated with nearby wreck 70657. No associated SSS or MBES contacts. Possible ferrous debris without surface expression; burial unlikely at this location due to rock outcrop. Located approximately 95m SW from wreck 70657 and may be related, but this is uncertain.	Mag.	OFTO 2020	Block A	-
7339	Magnetic	249764	6058371	A2	-	-	-	48	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression; burial unlikely at this location due to rock outcrop. Located approximately 120 m south of wreck 70657 and may be related, but this is uncertain.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7340	Magnetic	249713	6058329	A2	-	-	-	26	A small, distinct magnetic dipole with peak and trough on one survey line. No definitely associated SSS or MBES contacts, but a small mound identified on the MBES at this location. Possible ferrous debris without surface expression; burial unlikely at this location due to rock outcrop. Located approximately 165m SSW from wreck 70657 and may be related, but this is uncertain.	Mag.	OFTO 2020	Block A	-
7341	Magnetic	249754	6058329	A2	-	-	-	120	A large, distinct magnetic dipole with peak and trough on one survey line. No definitely associated SSS or MBES contacts, but a small mound identified in the MBES data close to this location. Possible ferrous debris without surface expression; burial unlikely at this location due to rock outcrop. Located approximately 160m south from wreck 70657 and may be related, but this is uncertain.	Mag.	OFTO 2020	Block A	-
7342	Magnetic	250158	6058491	A2	-	-	-	73	A distinct medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7343	Magnetic	250144	6058332	A2	-	-	-	17	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7344	Magnetic	250305	6058441	A2	-	-	-	37	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7345	Magnetic	250485	6058355	A2	-	-	-	38	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7346	Magnetic	250496	6058465	A2	-	-	-	23	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7348	Magnetic	250841	6058283	A2	-	-	-	36	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7349	Magnetic	251316	6058592	A2	-	-	-	39	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7350	Magnetic	251349	6058576	A2	-	-	-	21	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression but could be a natural feature. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7351	Dark reflector	251562	6058548	A2	3.7	3.1	1.5	-	Distinct, irregular dark reflector with large, distinct shadow, located in an area of mobile seabed sediment. Identified in the MBES data as a distinct mound. No associated Mag. anomaly. Possible non-ferrous debris but could be a natural feature.	SSS, MBES	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7352	Magnetic	251744	6058698	A2	-	-	-	56	A medium positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7353	Magnetic	251823	6058832	A2	-	-	-	106	A large, complex magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7354	Magnetic	252036	6058810	A2	-	-	-	32	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7355	Debris	252442	6058931	A2	2.0	1.8	1.3	215	A tall, steep sided mound with a slightly flattened top, identified within the MBES data. Located in an area of bedrock outcrop and surrounded by scattered rocks but is much larger than surrounding features. Associated with a large, distinct, positive magnetic monopole. Possible ferrous debris.	MBES, Mag.	OFTO 2020	Block A	-
7356	Magnetic	253087	6059031	A2	-	-	-	30	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-
7357	Magnetic	253105	6059268	A2	-	-	-	50	A medium positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7358	Magnetic	253373	6059350	A2	-	-	-	32	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7359	Magnetic	243093	6057931	A2	-	-	-	10	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7360	Magnetic	243349	6057972	A2	-	-	-	20	A small but distinct magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris that is either buried or without surface expression.	Mag.	OFTO 2020	Block A	-
7361	Magnetic	249554	6058437	A2	-	-	-	103	A large positive magnetic monopole identified with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop. Potentially debris associated with wreck 70657, although this is located approximately 210 m to the ENE, so this is uncertain.	Mag.	OFTO 2020	Block A	-
7362	Magnetic	250481	6058386	A2	-	-	-	98	A medium magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris without surface expression. Burial unlikely at this location due to rock outcrop.	Mag.	OFTO 2020	Block A	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70656	Dark reflector	247206	6057940	A2	7.8	0.2	0.0	12	Short, linear dark reflector without shadow, identified during previous phases of work. Not identified within the SSS data during the current assessment but associated with a newly identified small negative magnetic monopole. Possible ferrous debris but is situated in an area of bedrock outcrop and may be a natural bedrock feature with a relatively high fraction of iron minerals. Retained as a precaution.	SSS, Mag.	Teesside cable route 2013	Block A	-
7363	Debris	241407	6058623	A1	2.0	1.8	1.5	8322	Distinct circular dark reflector which appears partly hollow, possibly with a centre feature. This casts an irregularly slanted bright shadow and a longer narrow shadow from the centre. Visible as a very large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES contacts. Possible ferrous debris, however, could be modern, such as buoy tether.	SSS, Mag.	OFTO 2020	Nearshore	-
7364	Magnetic	240313	6058315	A2	-	-	-	31	A small magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7365	Magnetic	240440	6058087	A2	-	-	-	127	A large, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7366	Magnetic	240490	6058039	A2	-	-	-	31	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7367	Magnetic	240548	6058074	A2	-	-	-	14	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7368	Magnetic	240609	6058449	A2	-	-	-	78	A medium, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7369	Magnetic	240645	6058014	A2	-	-	-	186	A large, sharp magnetic dipole with peak and trough over two survey lines. Complex anomaly. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7370	Magnetic	240650	6058068	A2	-	-	-	55	A medium, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7371	Magnetic	240698	6058118	A2	-	-	-	32	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7372	Magnetic	240707	6058377	A2	-	-	-	13	A small magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7373	Magnetic	240724	6058097	A2	-	-	-	38	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7374	Magnetic	240783	6058230	A2	-	-	-	108	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7375	Dark reflector	240845	6058793	A2	1.0	0.7	0.1	-	Small slightly elongate dark reflector which casts a very narrow, angled shadow. Present in an associated scour, in an area of mobile sediment. Visible on the MBES data as a small elongate mound aligned at odds with geological striations. No associated Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Nearshore	-
7376	Magnetic	240875	6058139	A2	-	-	-	70	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7377	Magnetic	240875	6058239	A2	-	-	-	67	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7378	Magnetic	240878	6058114	A2	-	-	-	126	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7379	Magnetic	240924	6058154	A2	-	-	-	67	A medium and slightly irregular, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7380	Magnetic	240933	6058147	A2	-	-	-	144	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7381	Debris	240982	6058899	A2	1.3	0.9	0.2	-	Rounded dark reflector which appears hollow, possibly with internal structure. This casts a small tapered shadow. No associated MBES or Mag. anomalies. MBES shows a small mound at this location. Possible item of non-ferrous debris.	SSS	OFTO 2020	Nearshore	-
7382	Dark reflector	241017	6058657	A2	6.1	2.9	0.8	-	Large elongated and slightly irregular dark reflector which casts a bright, irregular shadow along its length. Visible on the MBES data as a slightly irregular elongate mound with a flattened top. This is present at the edge of an area of mega ripples. No associated Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS, MBES	OFTO 2020	Nearshore	-
7383	Magnetic	241037	6058109	A2	-	-	-	36	A small negative magnetic monopole with peak and trough on one survey line. Located along the line of a possible old cable. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7384	Magnetic	241056	6058135	A2	-	-	-	552	A very large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7385	Dark reflector	241053	6058699	A2	1.5	0.6	0.8	-	Sub-angular dark reflector which casts a bright, straight-sided shadow that has a slanted end shape. No associated MBES or Mag. contacts. MBES shows a small mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7386	Magnetic	241097	6058156	A2	-	-	-	97	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7387	Magnetic	241225	6058604	A2	-	-	-	21	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7388	Dark reflector	241225	6058811	A2	3.0	0.2	0.1	-	Short linear dark reflector which casts a short and irregularly shaped shadow. No associated MBES or Mag. contacts. MBES shows a small mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7389	Dark reflector	241234	6058694	A2	2.1	1.4	1.2	-	A large, sub-angular dark reflector which casts a long, bright, tapered shadow. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7390	Dark reflector	241244	6058643	A2	3.0	1.8	0.5	-	Distinct rounded dark reflector which appears hollow, with some internal structure. This casts a fairly bright shadow that flares and tapers. A taller and very narrow shadow may also be associated. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7391	Magnetic	241271	6058699	A2	-	-	-	72	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7392	Dark reflector	241276	6058623	A2	1.3	0.9	0.5	-	A distinct dark reflector which appears hollow. This casts a bright shadow with straight sides. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7393	Magnetic	241285	6058178	A2	-	-	-	34	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7394	Magnetic	241315	6058804	A2	-	-	-	12	A small magnetic dipole with peak and trough on one survey line. No definite associated SSS or MBES contacts, but MBES shows a mound at this location. Possible ferrous debris.	Mag.	OFTO 2020	Nearshore	-
7395	Magnetic	241340	6058669	A2	-	-	-	59	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7396	Magnetic	241342	6058797	A2	-	-	-	19	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7397	Debris	241352	6058656	A2	1.2	0.9	0.4	65	A distinct, rounded and possibly hollow dark reflector which casts a bright, tapered shadow. Visible as a medium, sharp magnetic dipole with peak and trough over two survey lines. No associated MBES contacts. MBES shows a mound at this location. Possible ferrous debris.	SSS, Mag.	OFTO 2020	Nearshore	-
7398	Magnetic	241363	6058861	A2	-	-	-	26	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7399	Magnetic	241368	6058231	A2	-	-	-	44	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7400	Magnetic	241393	6058237	A2	-	-	-	34	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7401	Dark reflector	241410	6058611	A2	1.9	0.5	0.1	-	A curvilinear dark reflector which casts a fairly bright shadow along its length, with one prominent point. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7402	Dark reflector	241477	6058688	A2	0.9	0.4	0.9	-	A distinct rounded dark reflector which casts a long narrow shadow. No associated MBES or Mag. contacts. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7403	Dark reflector	241491	6058694	A2	1.3	0.9	0.9	-	Distinct dark reflector which casts a long, bright shadow with a rounded end shape. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7404	Magnetic	241498	6058485	A2	-	-	-	75	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7405	Magnetic	241522	6058619	A2	-	-	-	70	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7406	Magnetic	241536	6058399	A2	-	-	-	14	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7407	Magnetic	241570	6058220	A2	-	-	-	78	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7408	Magnetic	241648	6058396	A2	-	-	-	192	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Located close to a linear tend, possibly representing an old cable, but may not be associated with it. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7409	Magnetic	241668	6058288	A2	-	-	-	20	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7410	Magnetic	241686	6058377	A2	-	-	-	44	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7411	Magnetic	241691	6058623	A2	-	-	-	251	A large, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7412	Debris	241693	6058635	A2	3.8	2.2	0.3	409	Irregularly shaped dark reflector, possibly 'T' shaped with the longer linear section extending to the south with some slight shadow. Associated with a large magnetic dipole with peak and trough on one survey line, and a small mound in the MBES data. Probable ferrous debris, potentially an anchor.	SSS	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7413	Magnetic	241703	6058546	A2	-	-	-	171	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. MBES shows a slight depression at this location. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7414	Magnetic	241703	6058068	A2	-	-	-	33	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7415	Magnetic	241730	6058355	A2	-	-	-	83	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7416	Magnetic	241770	6058398	A2	-	-	-	39	A small, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7417	Magnetic	241804	6058277	A2	-	-	-	34	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7418	Magnetic	241842	6058257	A2	-	-	-	50	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7419	Magnetic	241952	6058507	A2	-	-	-	26	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7420	Magnetic	241959	6058308	A2	-	-	-	26	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7421	Debris	241968	6058240	A2	1.5	1.2	0.3	549	A distinct dark reflector which appears almost linear and casts a bright, narrow and tapered shadow. This is set within a depression, likely an associated scour. Visible as a very large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES contacts. MBES shows a mound with a surrounding depression at this location. Possible item of ferrous debris.	SSS, Mag.	OFTO 2020	Nearshore	-
7422	Magnetic	242072	6058170	A2	-	-	-	56	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7423	Debris	242086	6058141	A2	1.2	1.0	0.7	126	A fairly distinct dark reflector which casts a very narrow shadow that appears to widen slightly along its length. This is within a small scour. Visible as a large, sharp magnetic dipole with peak and trough on one survey line. No associated MBES contacts. MBES shows a small depression at this location. Possible item of ferrous debris.	SSS, Mag.	OFTO 2020	Nearshore	-
7424	Magnetic	242222	6058092	A2	-	-	-	16	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7425	Magnetic	242227	6058137	A2	-	-	-	176	A large, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7426	Magnetic	242236	6058103	A2	-	-	-	67	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7427	Magnetic	242228	6058614	A2	-	-	-	1044	A linear area of magnetic anomalies, seen as sharp dipoles and a negative monopole, ranging in amplitude from 61 to 1044 nT. The trend runs northeast to southwest. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7428	Magnetic	242265	6058056	A2	-	-	-	24	A small positive magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7429	Dark reflector	242282	6058516	A2	1.5	1.2	0.1	-	Small sub-angular object with linear 'striations' and a small tapered shadow. No associated MBES or Mag. contacts. MBES shows a mound at this location. Possible non-ferrous debris or a natural feature.	SSS	OFTO 2020	Nearshore	-
7430	Debris	242320	6058472	A2	3.3	1.1	0.5	-	A large distinct and slightly elongate dark reflector which casts a bright, slightly irregularly tapered shadow. No associated MBES or Mag. contacts. MBES shows an elongate mound at this location. Possible item of non-ferrous debris.	SSS	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
7431	Magnetic	242355	6057965	A2	-	-	-	19	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possibly related to anomaly 7432. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7432	Magnetic	242371	6057982	A2	-	-	-	30	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possibly related to anomaly 7431. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7433	Magnetic	242409	6058467	A2	-	-	-	295	A large, sharp magnetic dipole with peak and trough over two survey lines. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7434	Magnetic	242468	6057947	A2	-	-	-	51	A medium, sharp magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7435	Magnetic	242484	6058377	A2	-	-	-	31	A small negative magnetic monopole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7436	Magnetic	242493	6058037	A2	-	-	-	24	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-
7437	Magnetic	242520	6058224	A2	-	-	-	14	A small magnetic dipole with peak and trough on one survey line. No associated SSS or MBES contacts. Possible ferrous debris, either buried or without surface expression.	Mag.	OFTO 2020	Nearshore	-

ID	Classification	Easting	Northing	Archaeological discrimination	Length (m)	Width (m)	Height (m)	Magnetic amplitude (nT)	Description	Anomaly type	Dataset	Section	External references
70653	Seabed disturbance	240728	6058315	A2	12.2	11.4	-	-	Elongate area of seabed comprised of multiple dark reflectors with no associated shadows, and distinct anomaly in the MBES data. Feature identified within previous phases of work only and not within the most recent geophysical data, suggesting it is likely buried at present. No associated Mag. anomaly. Originally interpreted as a debris field but reinterpreted as a seabed disturbance and could represent non-ferrous debris or a natural feature. Retained as a precaution.	SSS, MBES	Teesside cable route 2013	Nearshore	-

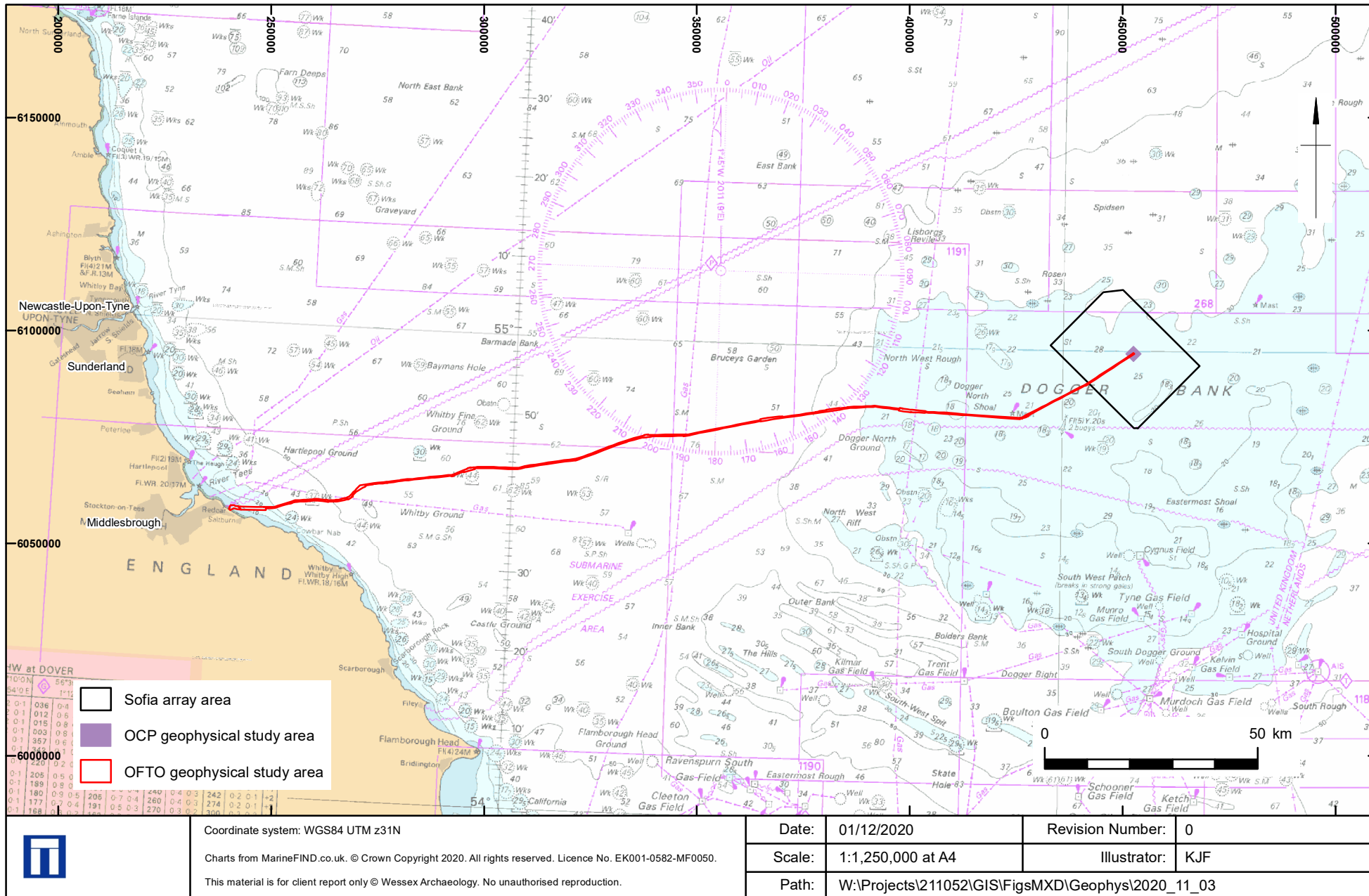
Notes

1. Co-ordinates are in WGS84 UTM31N
2. Positional accuracy estimated ± 5 m

APPENDIX D. MARITIME RECORDED LOSSES

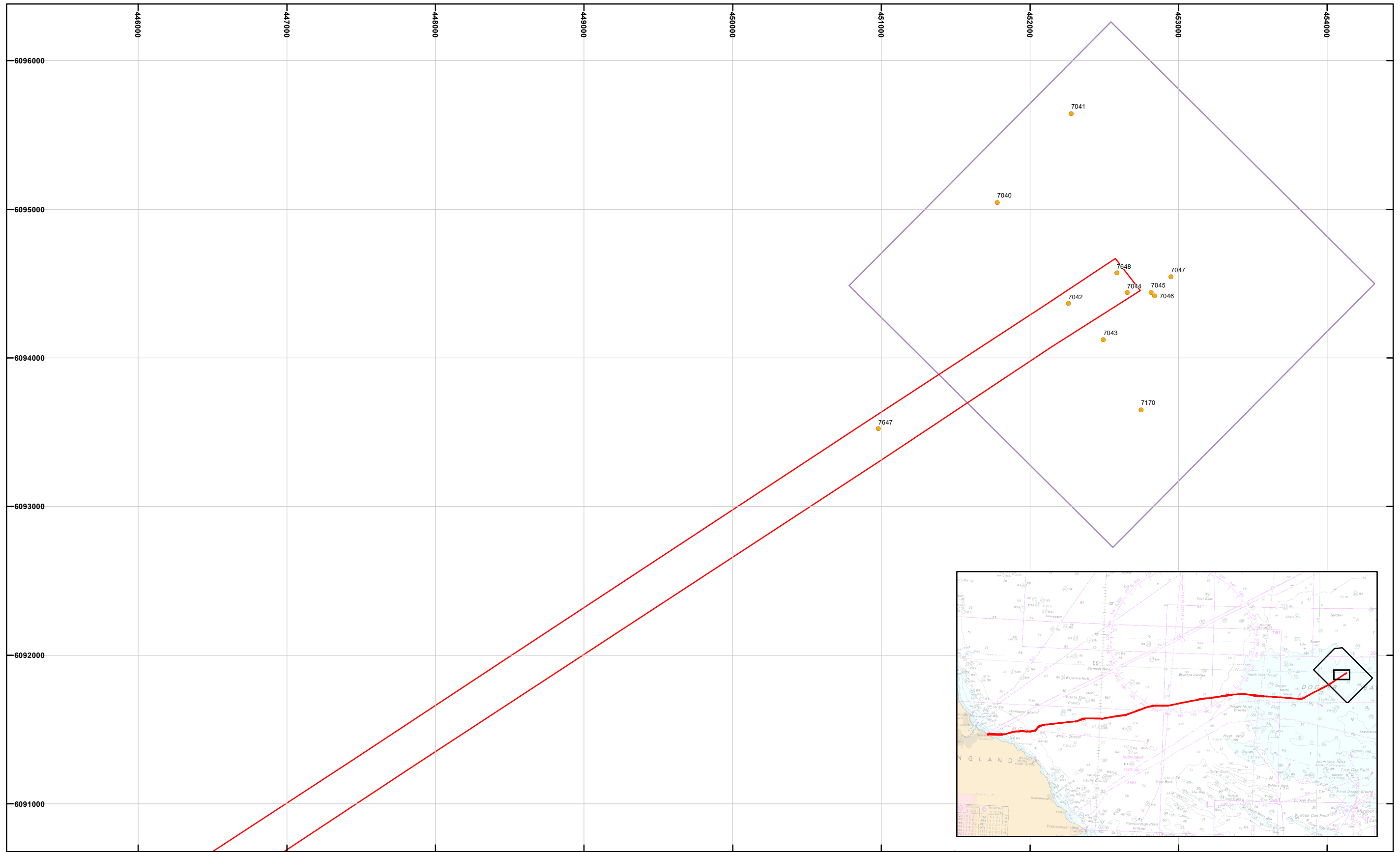
Export Cable Route





Reference	Name	Date of Loss	Description
SMR_2109	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2164	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2167	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2169	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2173	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2206	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2212	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2221	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2232	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2241	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2242	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2249	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2250	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2255	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2345	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2347	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
SMR_2612	Obstruction	Unknown	Wrecked off the coast - Fishermen's Fastener
UKHO_6829	Foul Ground	Unknown	Fisherman's Fastener
UKHO_6101	Unknown	Unknown	Listed by the UKHO as dead; Non-dangerous wreck; always under water/submerged
UKHO_6551	Unknown	Unknown	Listed by the UKHO as dead; Non-dangerous wreck; always under water/submerged
UKHO_66437	Unknown	Unknown	Listed by the UKHO as dead; Foul ground
UKHO_79037	Unknown	Unknown	Unknown; lifted
UKHO_6052	Unknown	22.02.1917	Wreck - listed by the UKHO as a non-dangerous wreck. Vessel built in 1908 by S P Austin & Son, Sunderland, with a triple expansion engine of 113Hp, 1 boiler, single shaft. At the time of loss, it was owned by Stephenson, Clarke & Co and was on passage from Newcastle-upon-Tyne for Shoreham. It was struck by a mine with 10 of the 14-crew perishing. Not located in multibeam survey in 2016 and amended to dead by the UKHO.
UKHO_6290	Aircraft XR 760	15.07.1986	Aircraft XR 760 - Crashed in 1986, probably broke up on impact.



Study area location

Figure 1



-  Sofia array area
 -  OCP geophysical study area
 -  OFTO geophysical study area
- Seabed feature of archaeological potential**
-  A2: Uncertain origin of possible archaeological interest



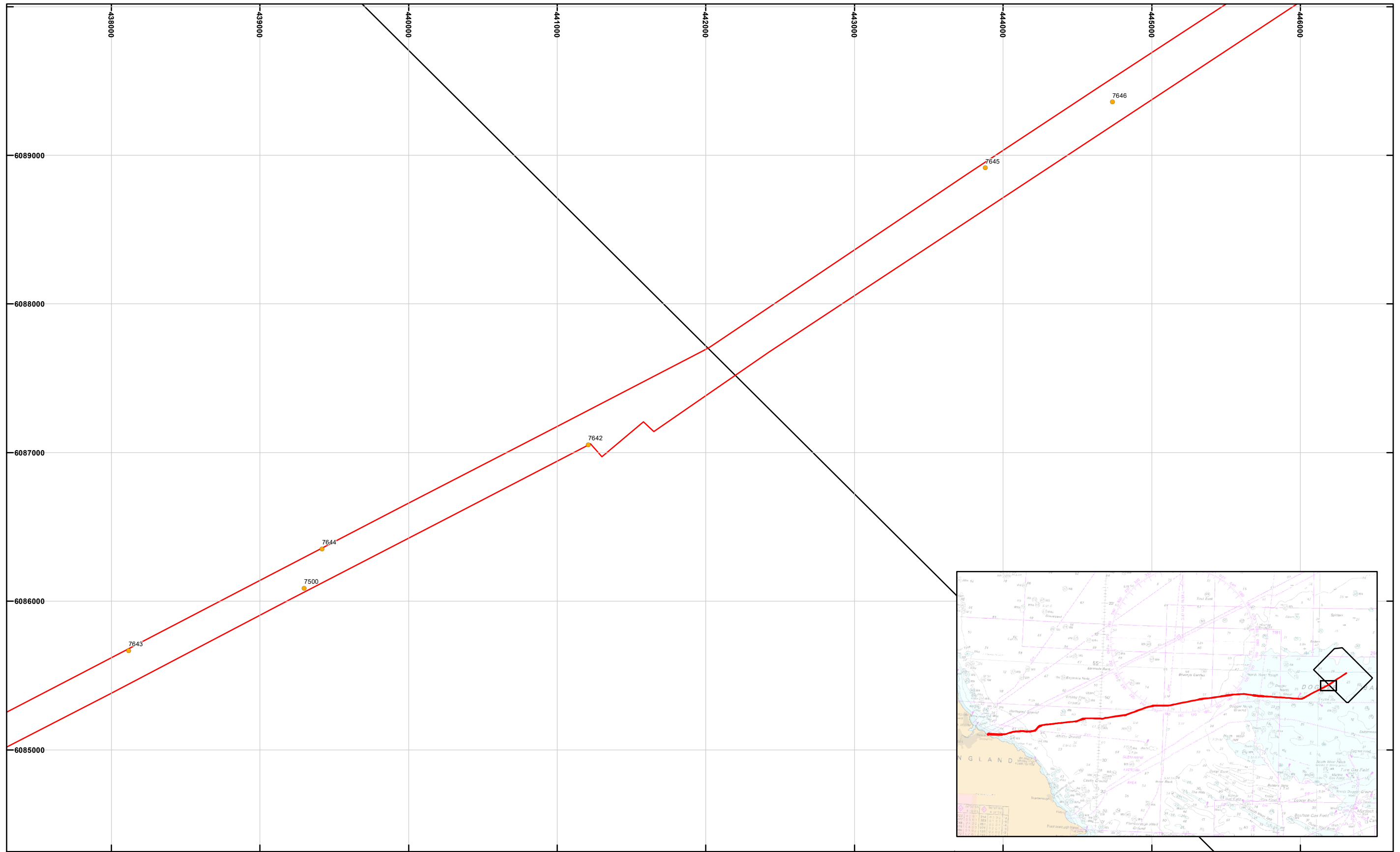
Coordinate system: WGS84 UTM z31N

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Seabed features of archaeological potential

Figure 2a



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



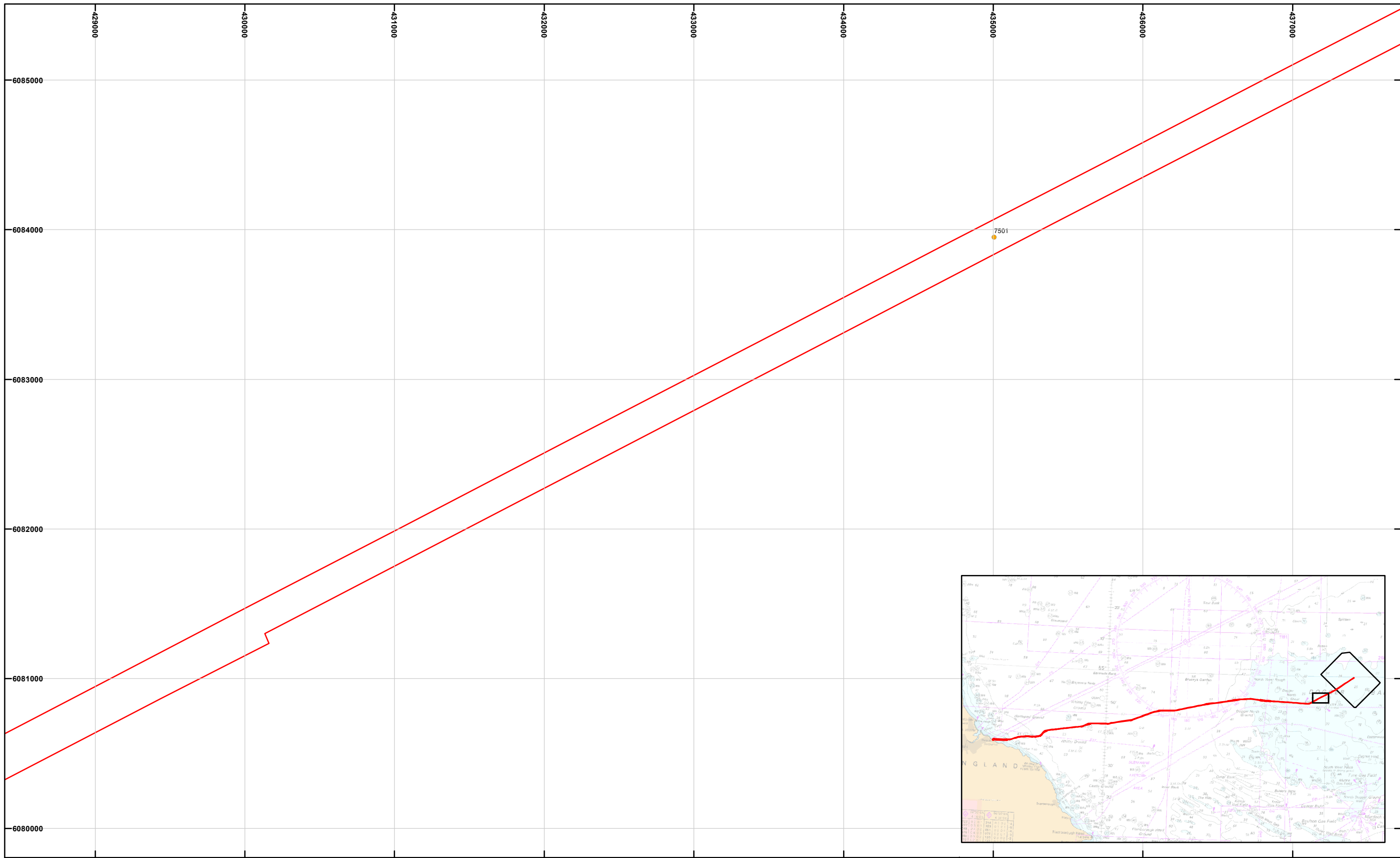
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Seabed features of archaeological potential

Figure 2b



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



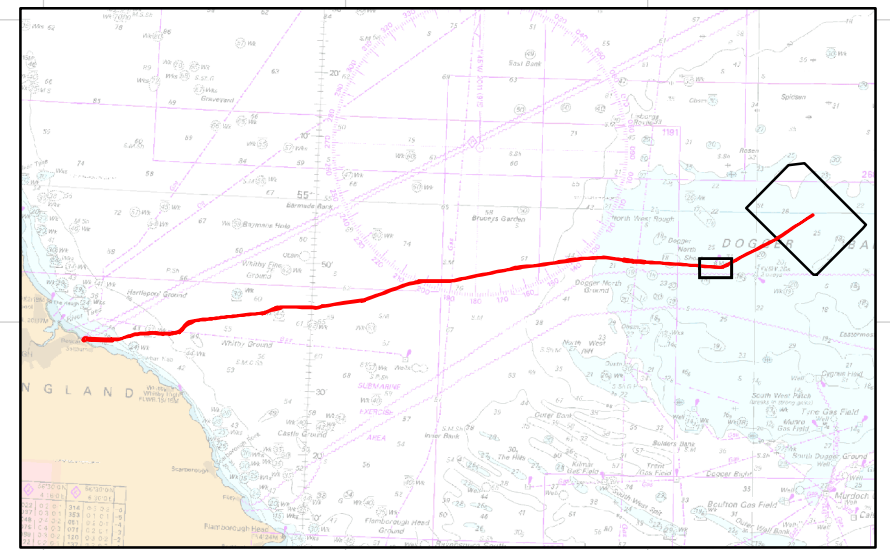
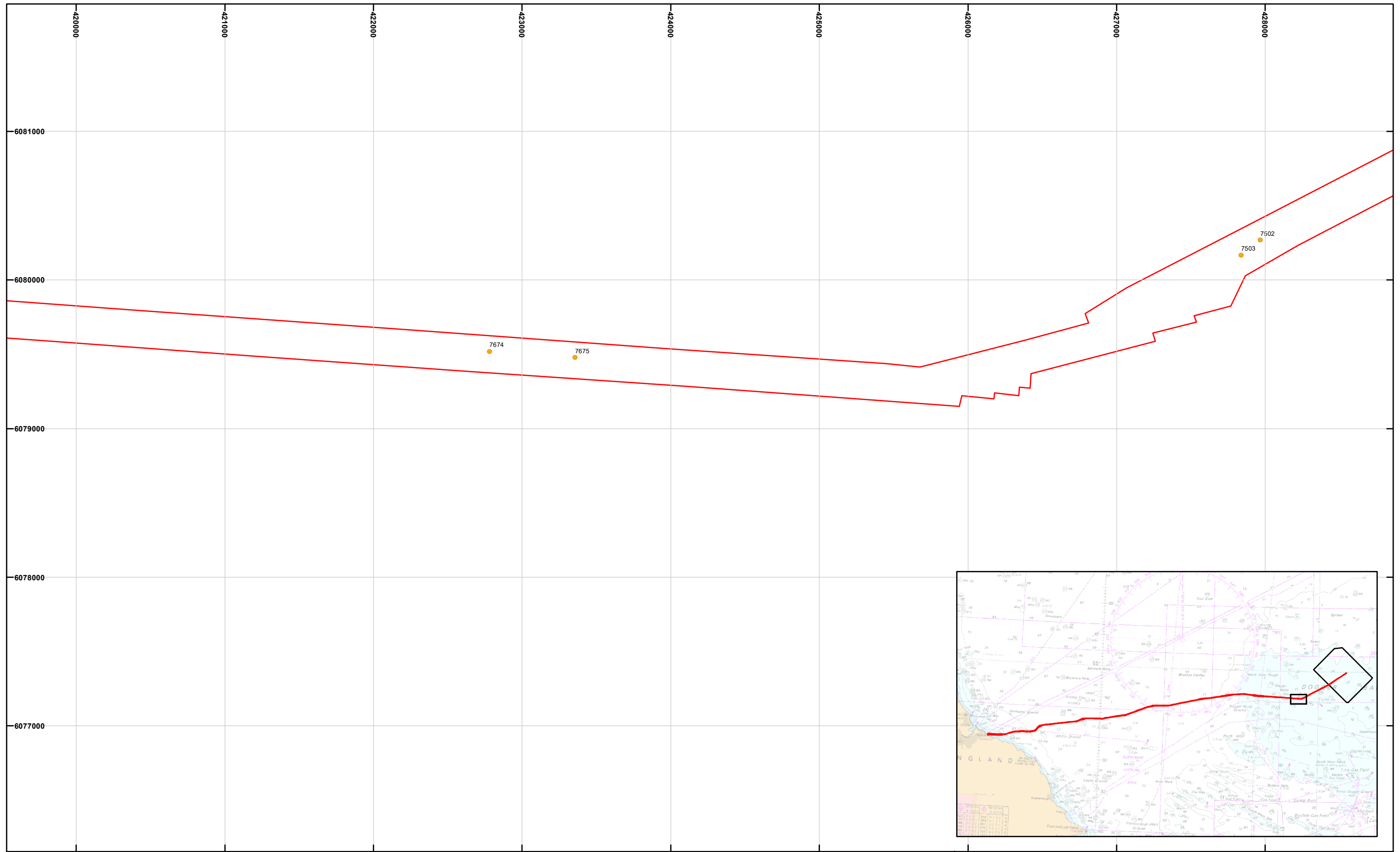
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Seabed features of archaeological potential

Figure 2c



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest

Coordinate system: WGS84 UTM z31N

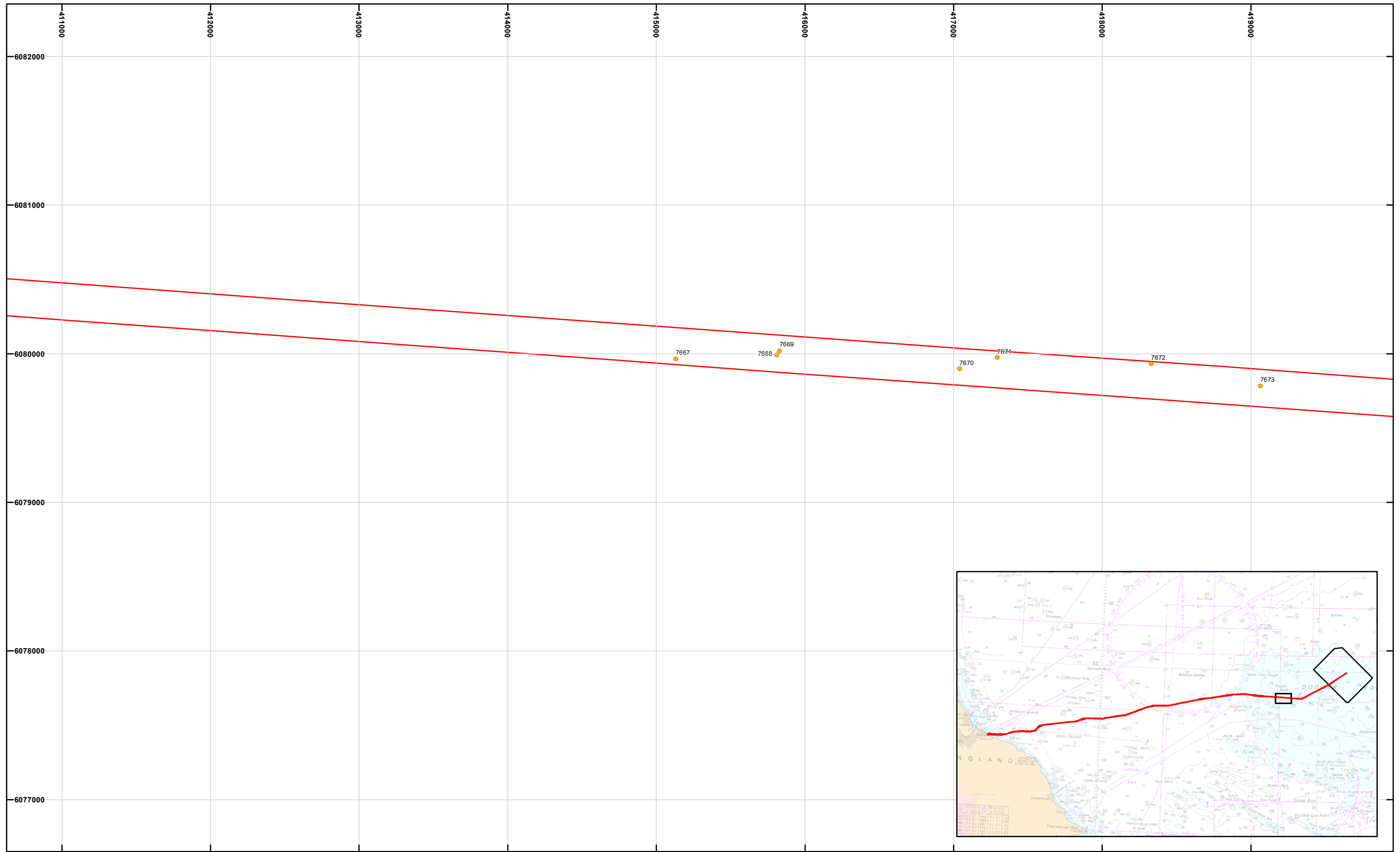
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Seabed features of archaeological potential

Figure 2d



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



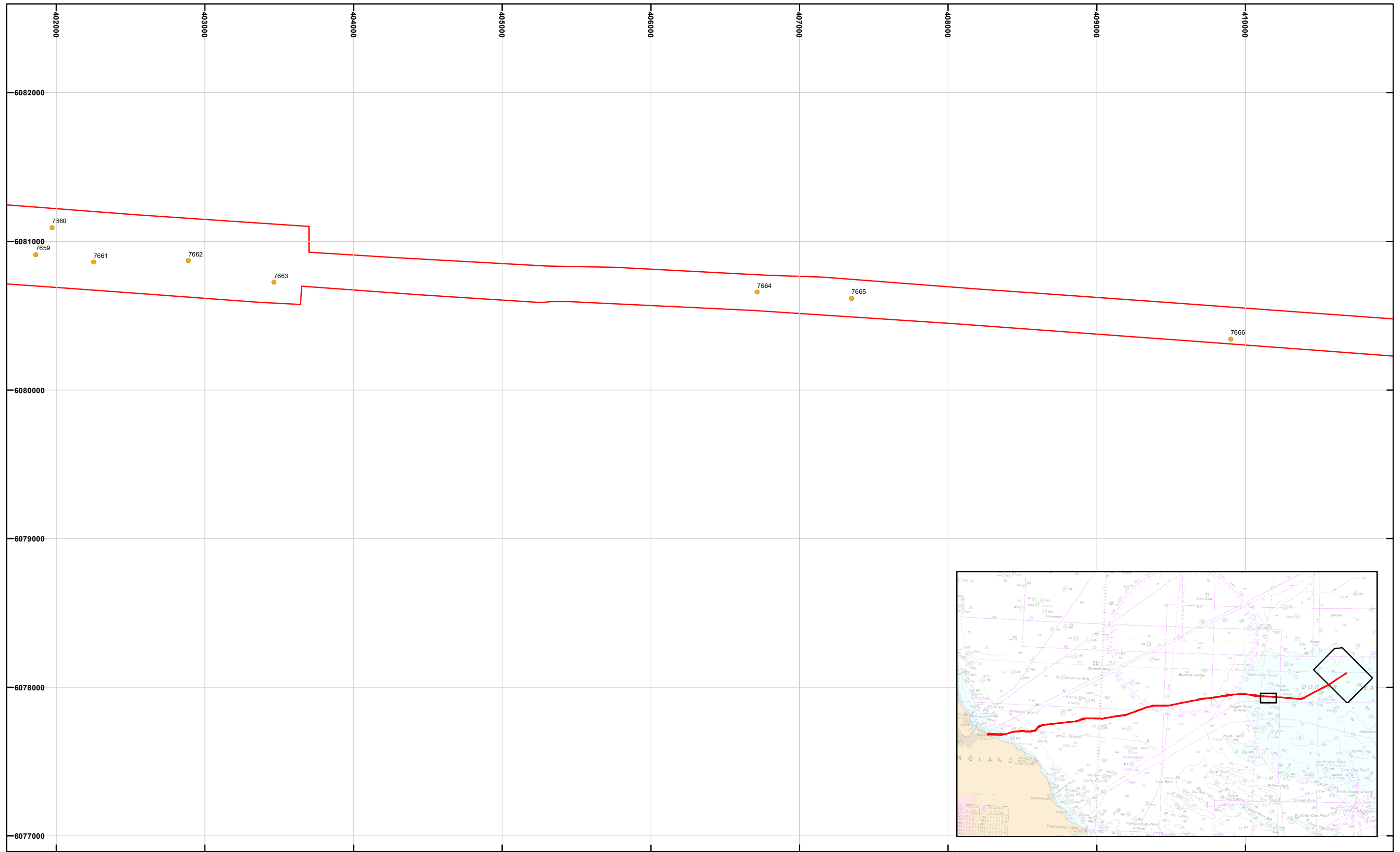
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Seabed features of archaeological potential

Figure 2e



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest

Coordinate system: WGS84 UTM z31N

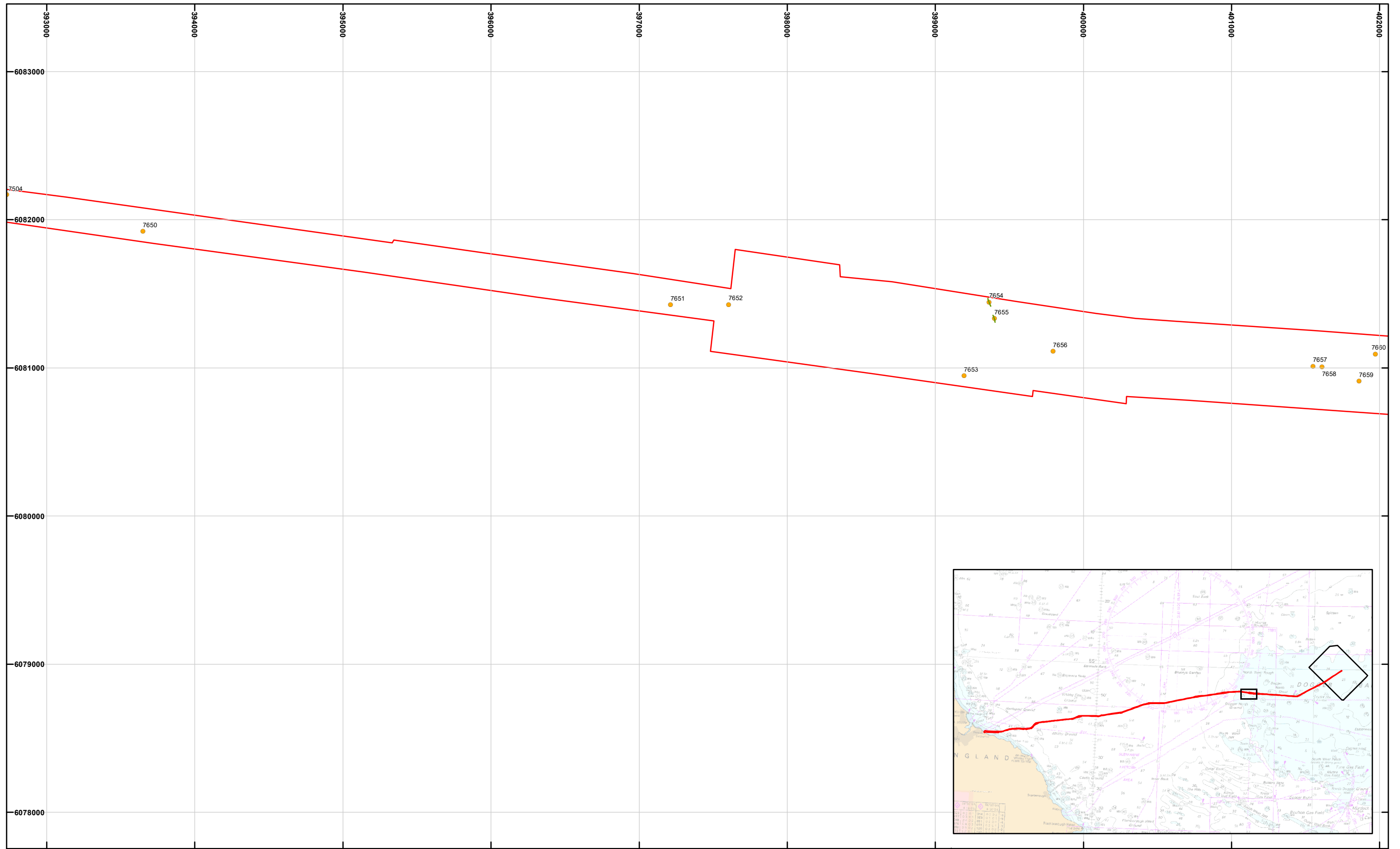
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Seabed features of archaeological potential

Figure 2f



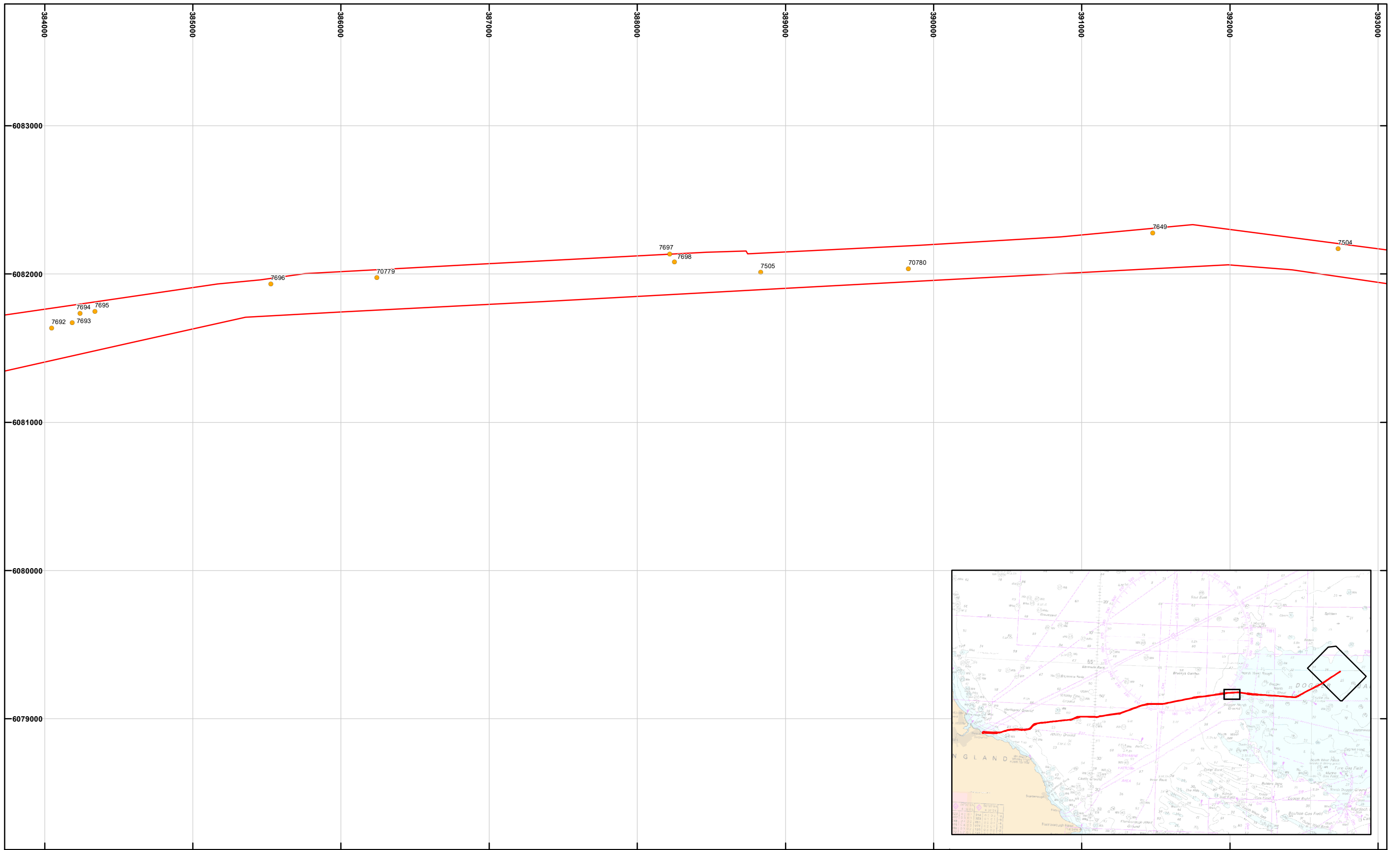
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Seabed features of archaeological potential

Figure 2g



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest

Coordinate system: WGS84 UTM z31N

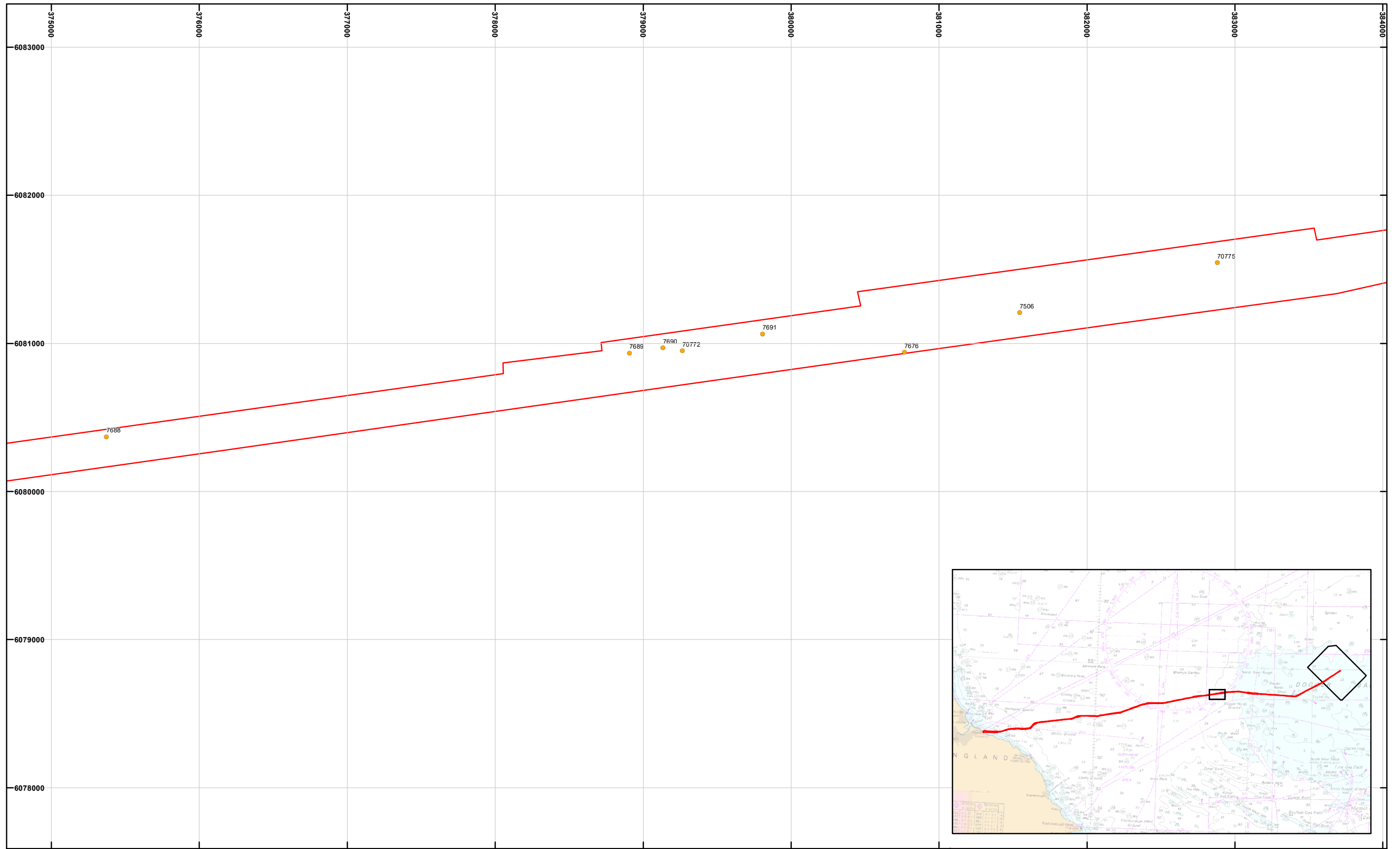
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Seabed features of archaeological potential

Figure 2h



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest

Coordinate system: WGS84 UTM z31N

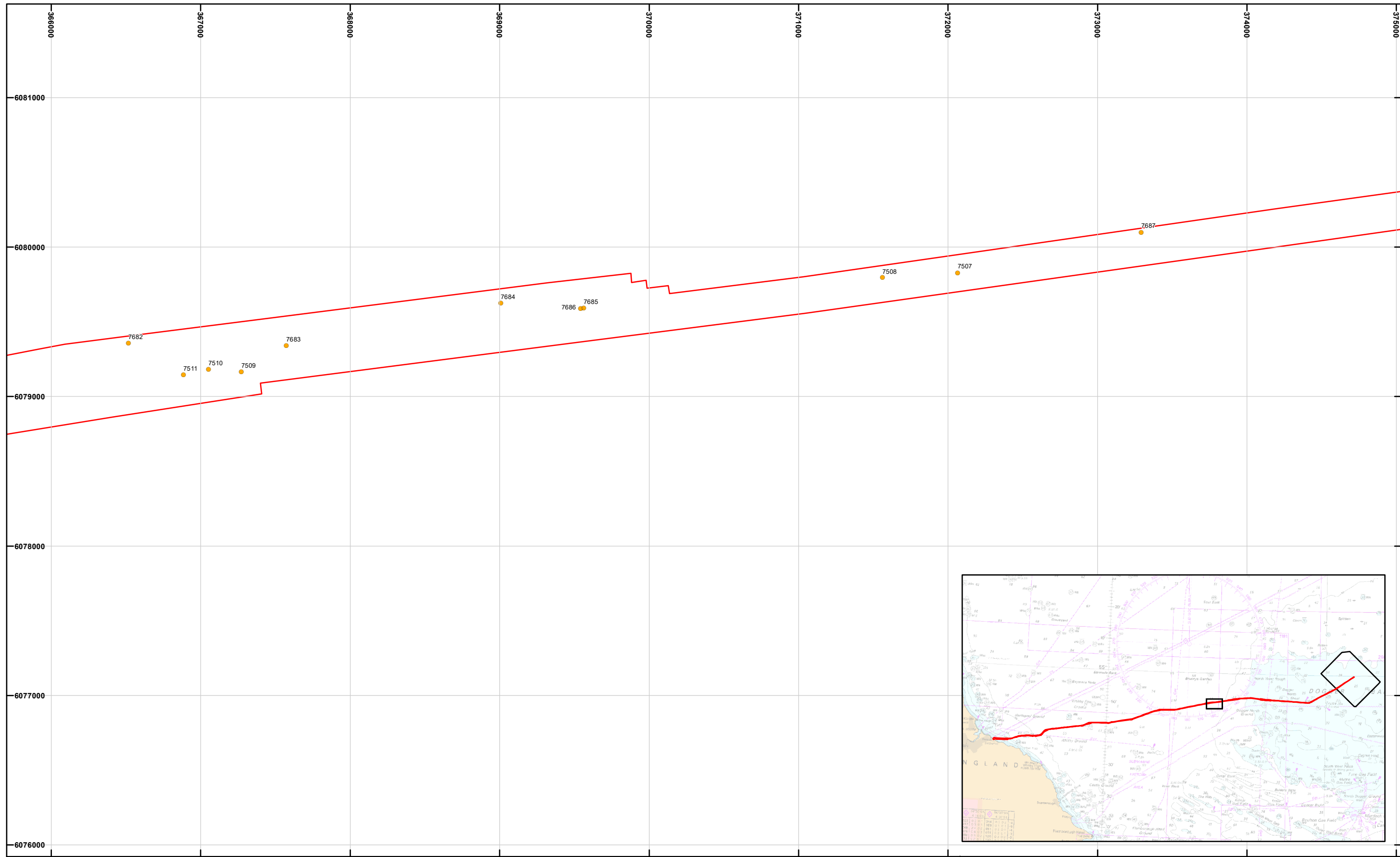
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Seabed features of archaeological potential

Figure 2i



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



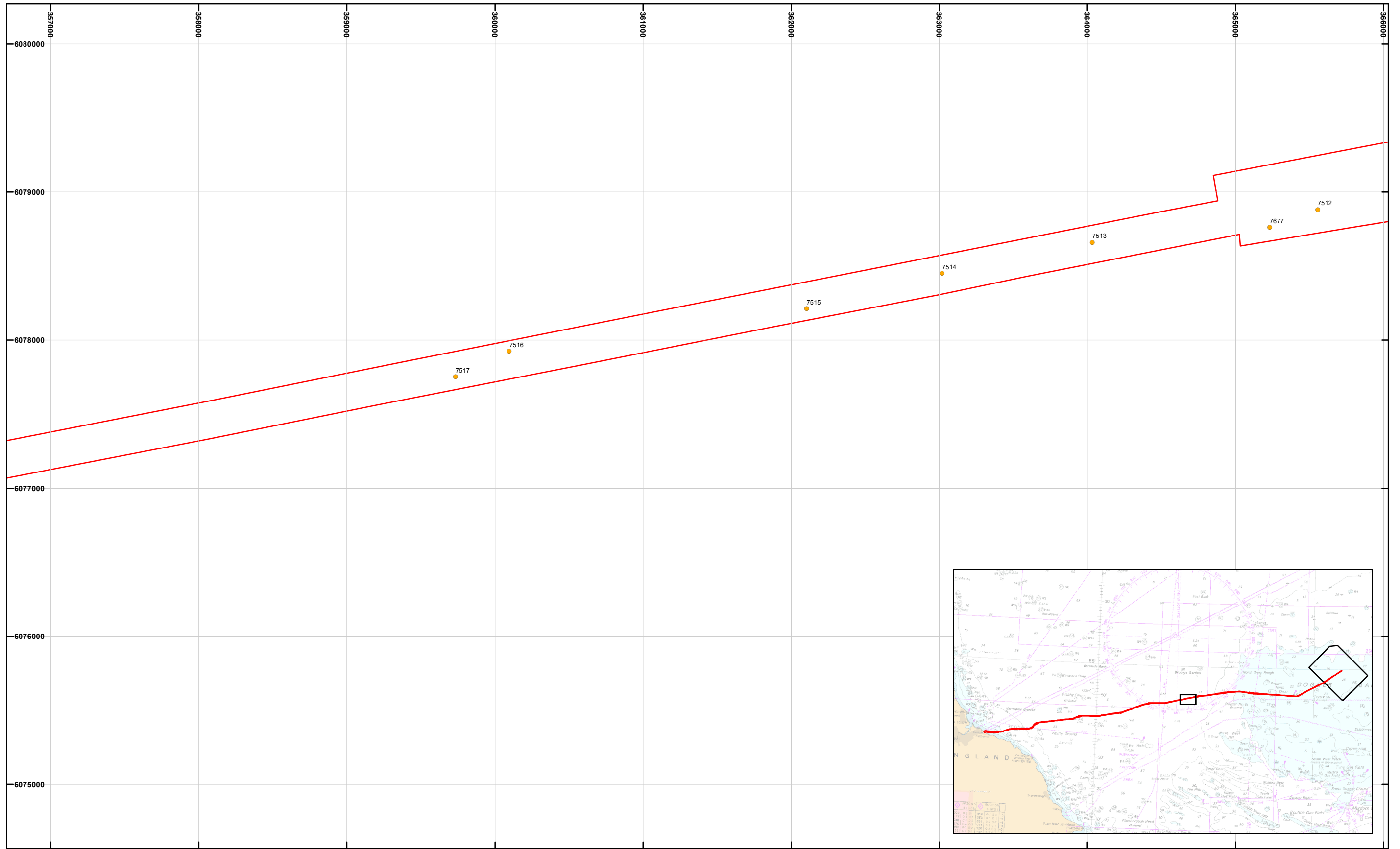
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Seabed features of archaeological potential

Figure 2j



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



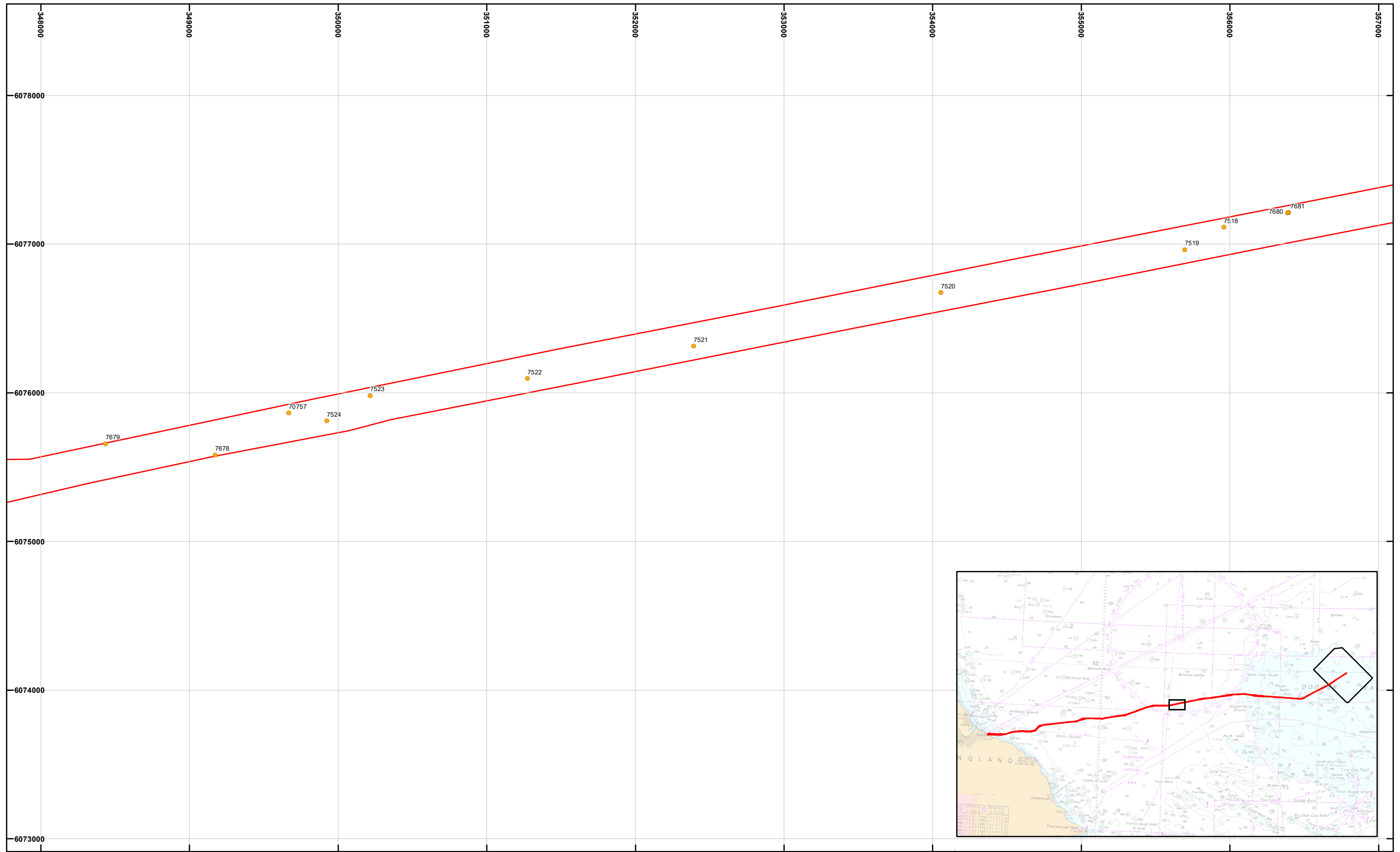
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Seabed features of archaeological potential

Figure 2k



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



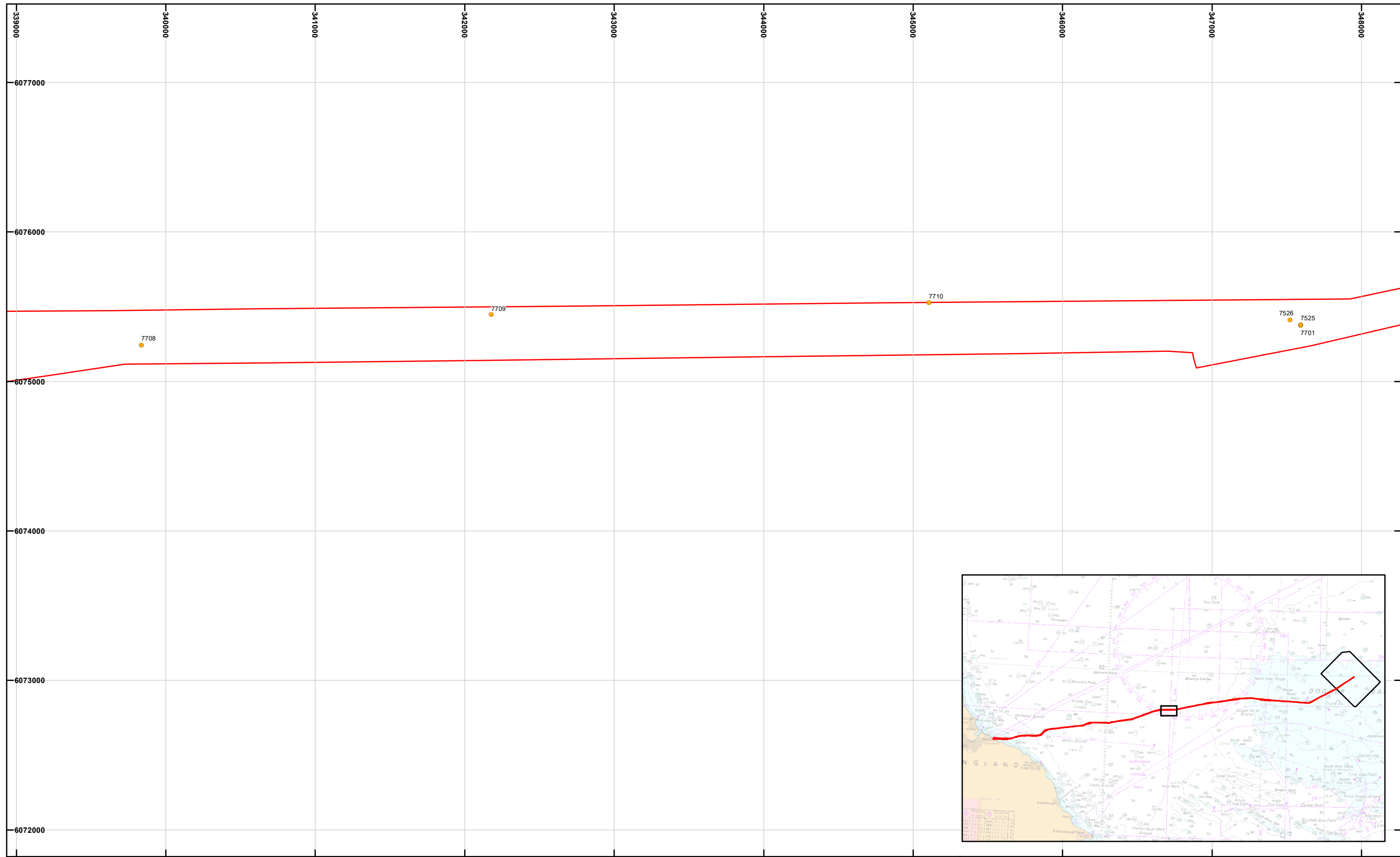
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Seabed features of archaeological potential

Figure 21



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



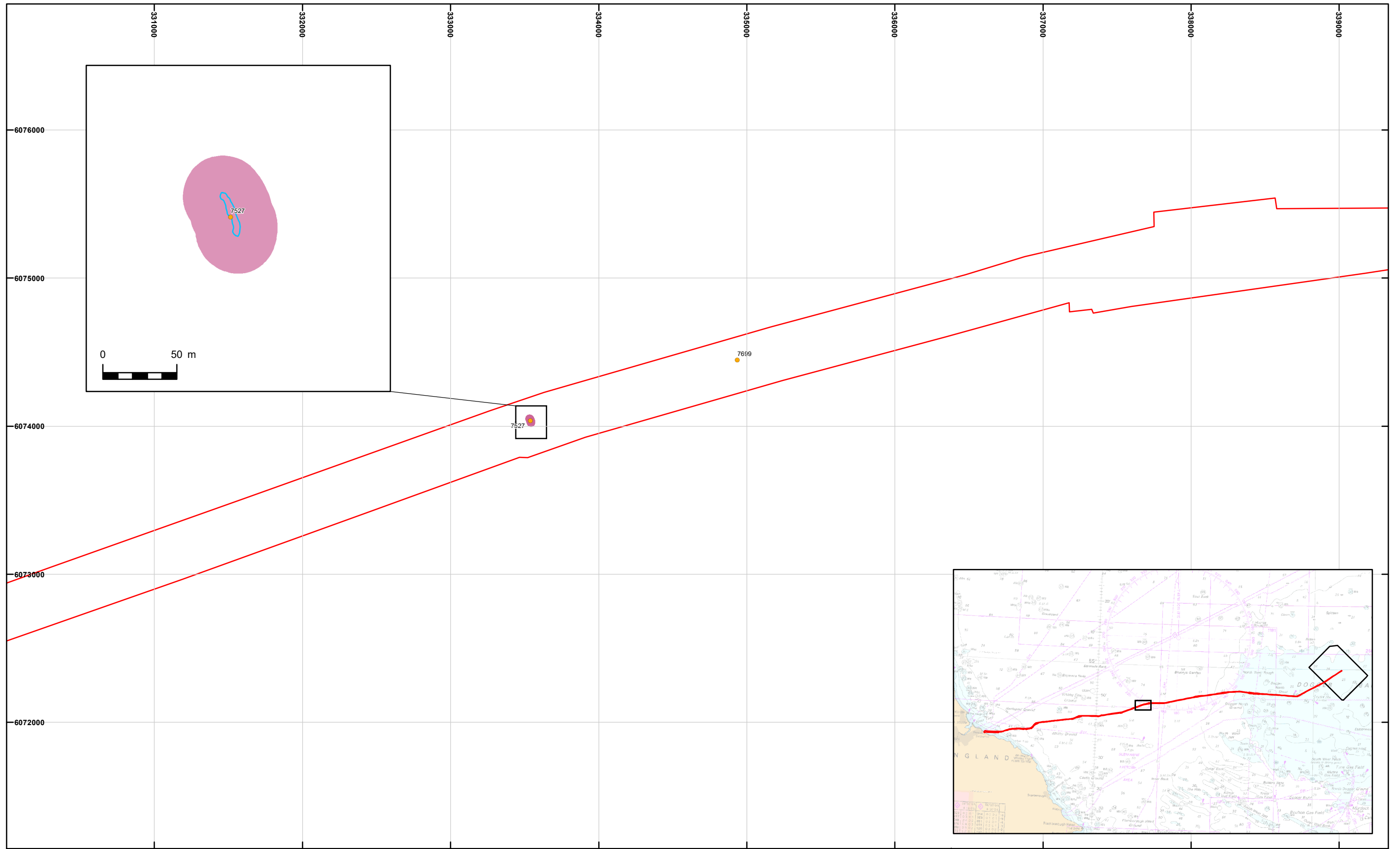
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Seabed features of archaeological potential

Figure 2m



-  Sofia array area
-  OFTO geophysical study area
-  Proposed Archaeological Exclusion Zones
-  Debris field

- Seabed feature of archaeological potential**
-  A2: Uncertain origin of possible archaeological interest



Coordinate system: WGS84 UTM z31N

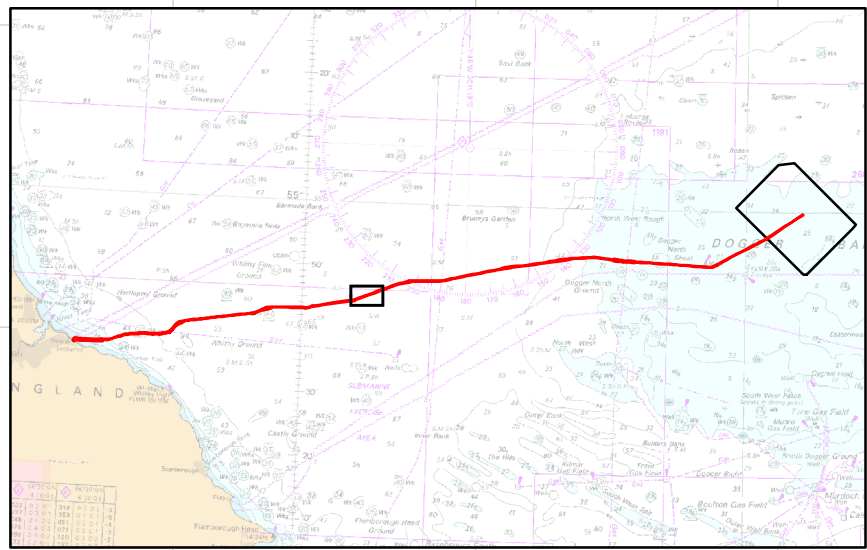
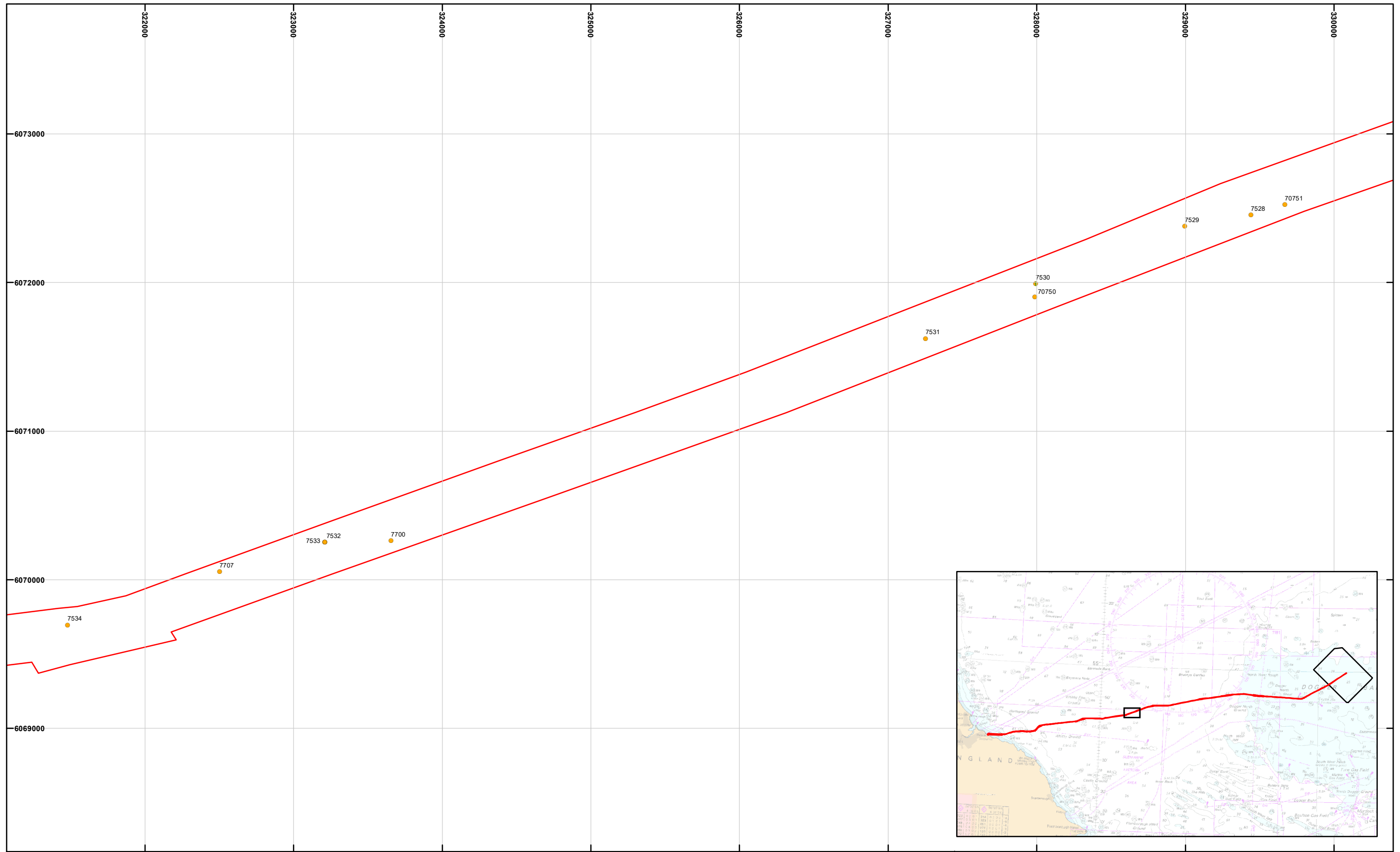
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Seabed features of archaeological potential

Figure 2n



- Sofia array area
- OFTO geophysical study area
- Linear features
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



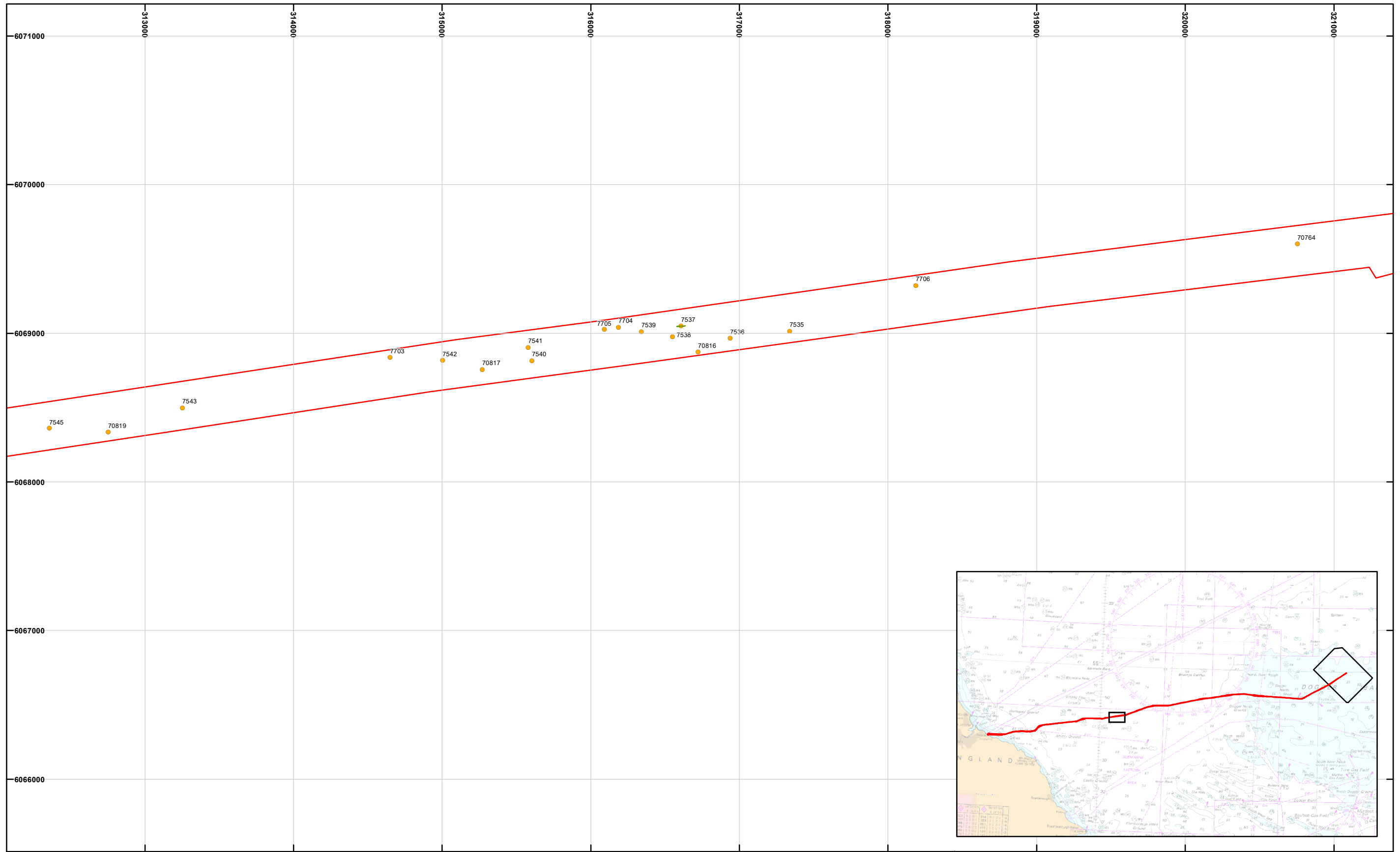
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Seabed features of archaeological potential

Figure 2o



-  Sofia array area
-  OFTO geophysical study area
-  Linear features
- Seabed feature of archaeological potential**
-  A2: Uncertain origin of possible archaeological interest

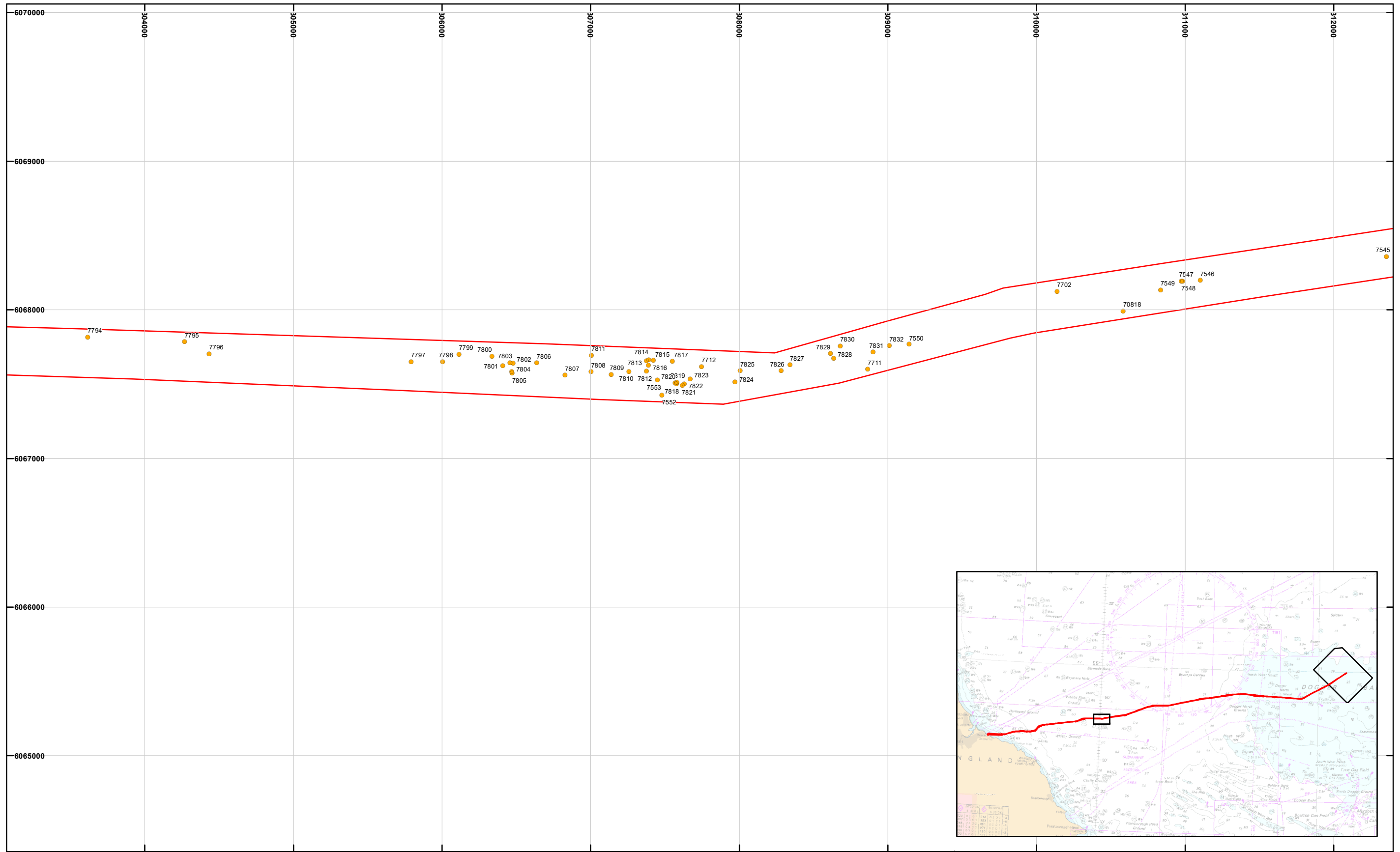


Coordinate system: WGS84 UTM z31N

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Seabed features of archaeological potential



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



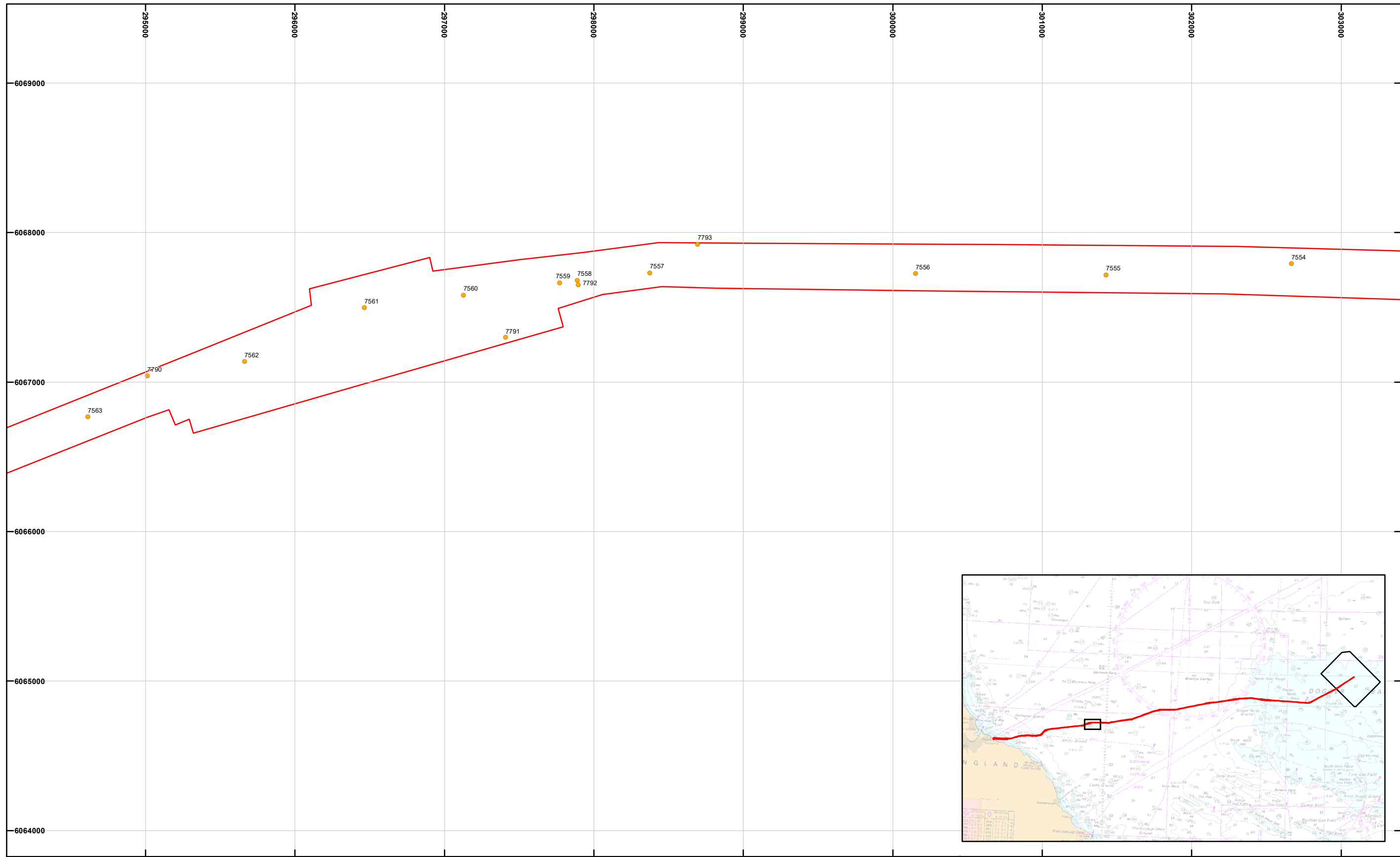
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Seabed features of archaeological potential

Figure 2q



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



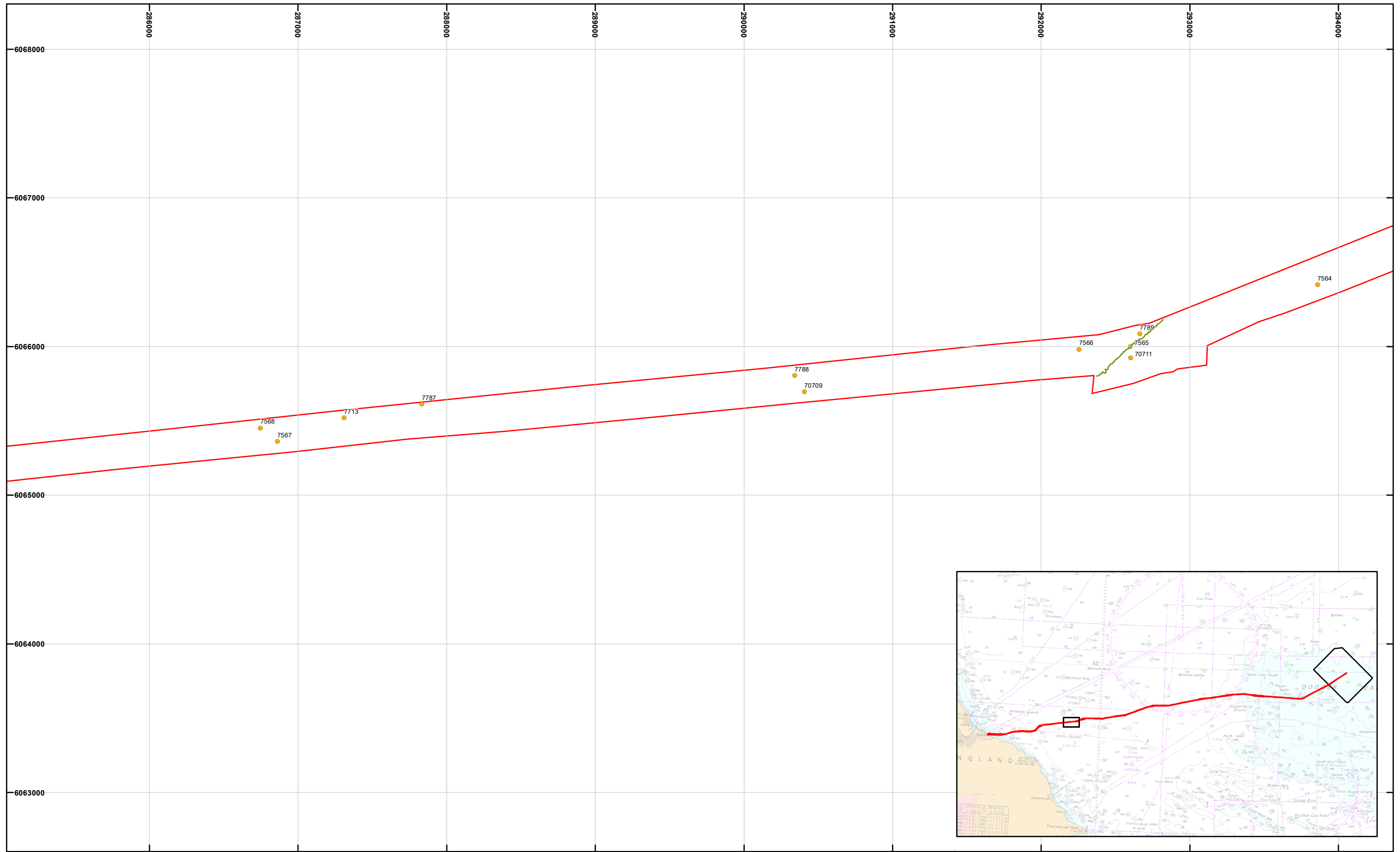
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Seabed features of archaeological potential

Figure 2r



- Sofia array area
 - OFTO geophysical study area
 - Linear features
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



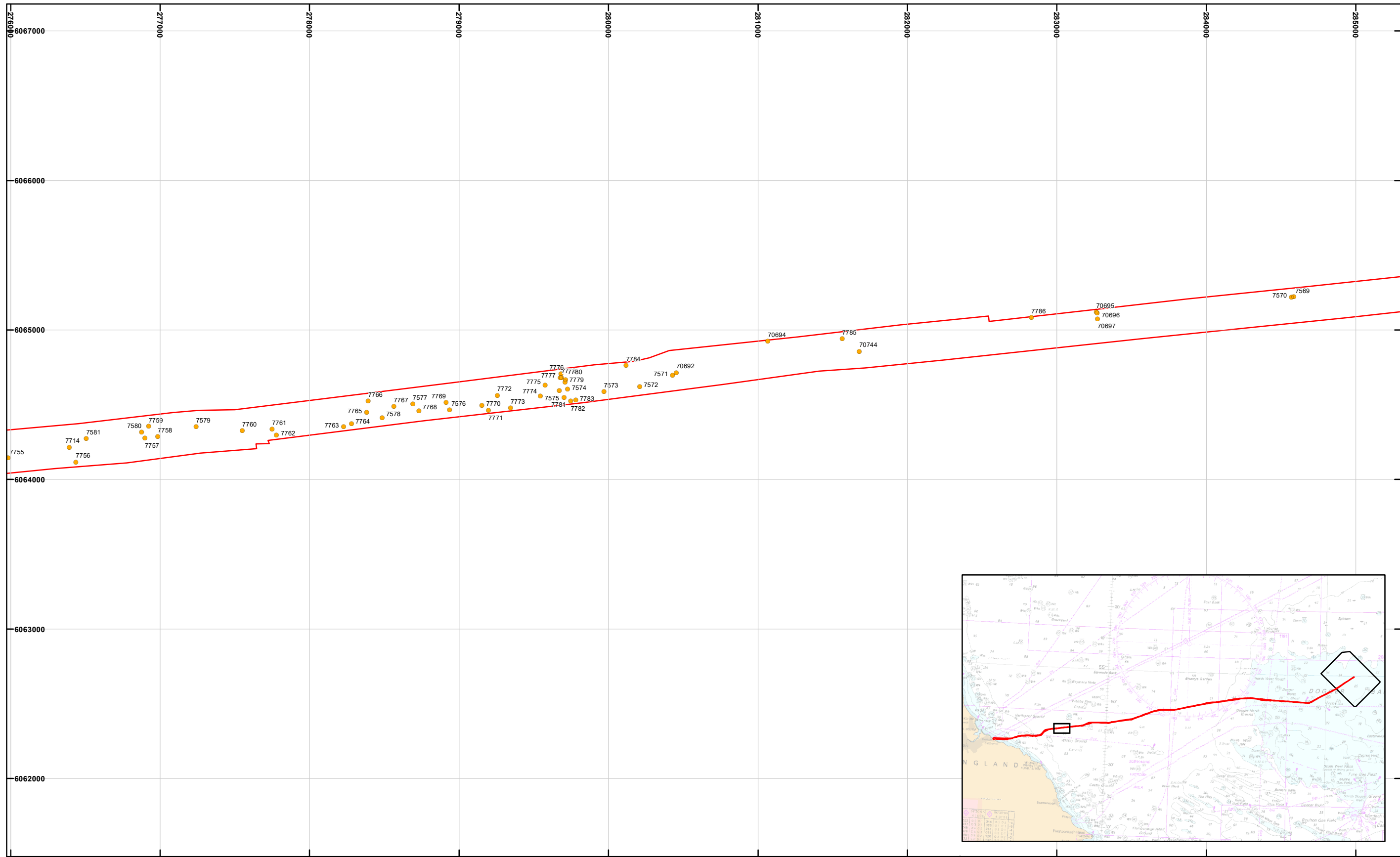
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Seabed features of archaeological potential

Figure 2s



- Sofia array area
- OFTO geophysical study area
- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest



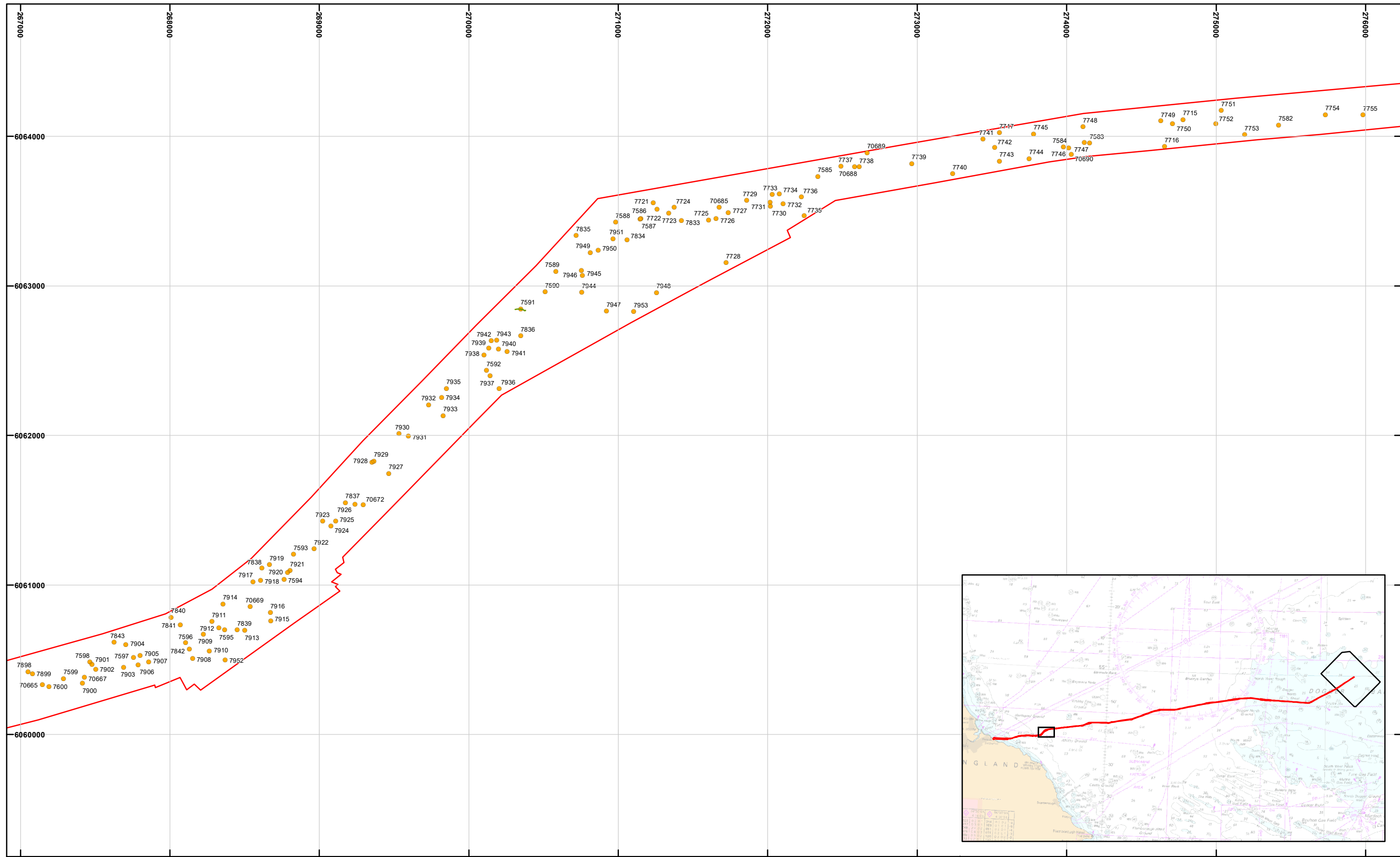
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Seabed features of archaeological potential

Figure 2t



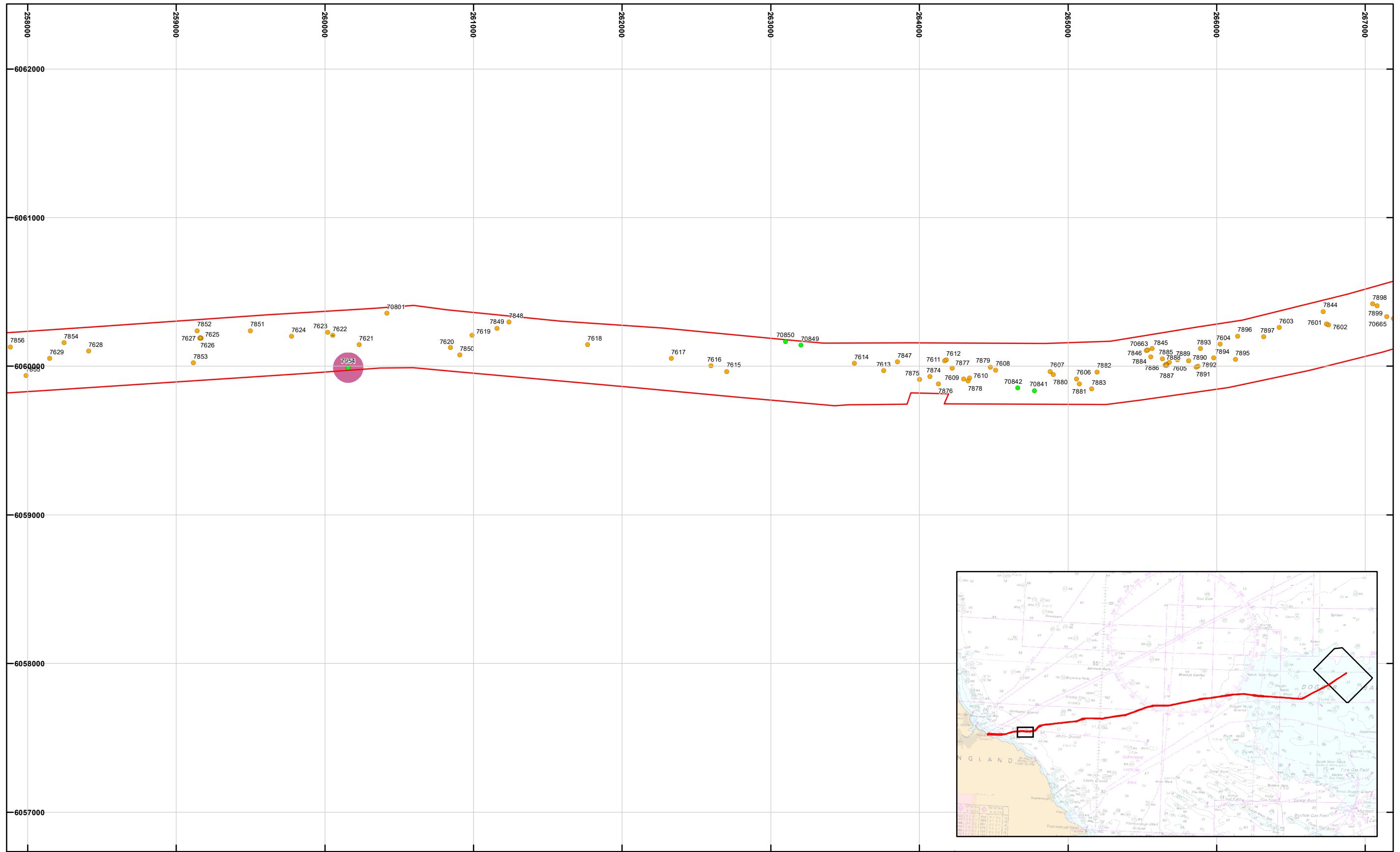
Coordinate system: WGS84 UTM z31N

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Seabed features of archaeological potential

Figure 2u



- Sofia array area
- OFTO geophysical study area
- Proposed Archaeological Exclusion Zones
- Linear features

- Seabed feature of archaeological potential**
- A2: Uncertain origin of possible archaeological interest
 - A3: Historic record of possible archaeological interest



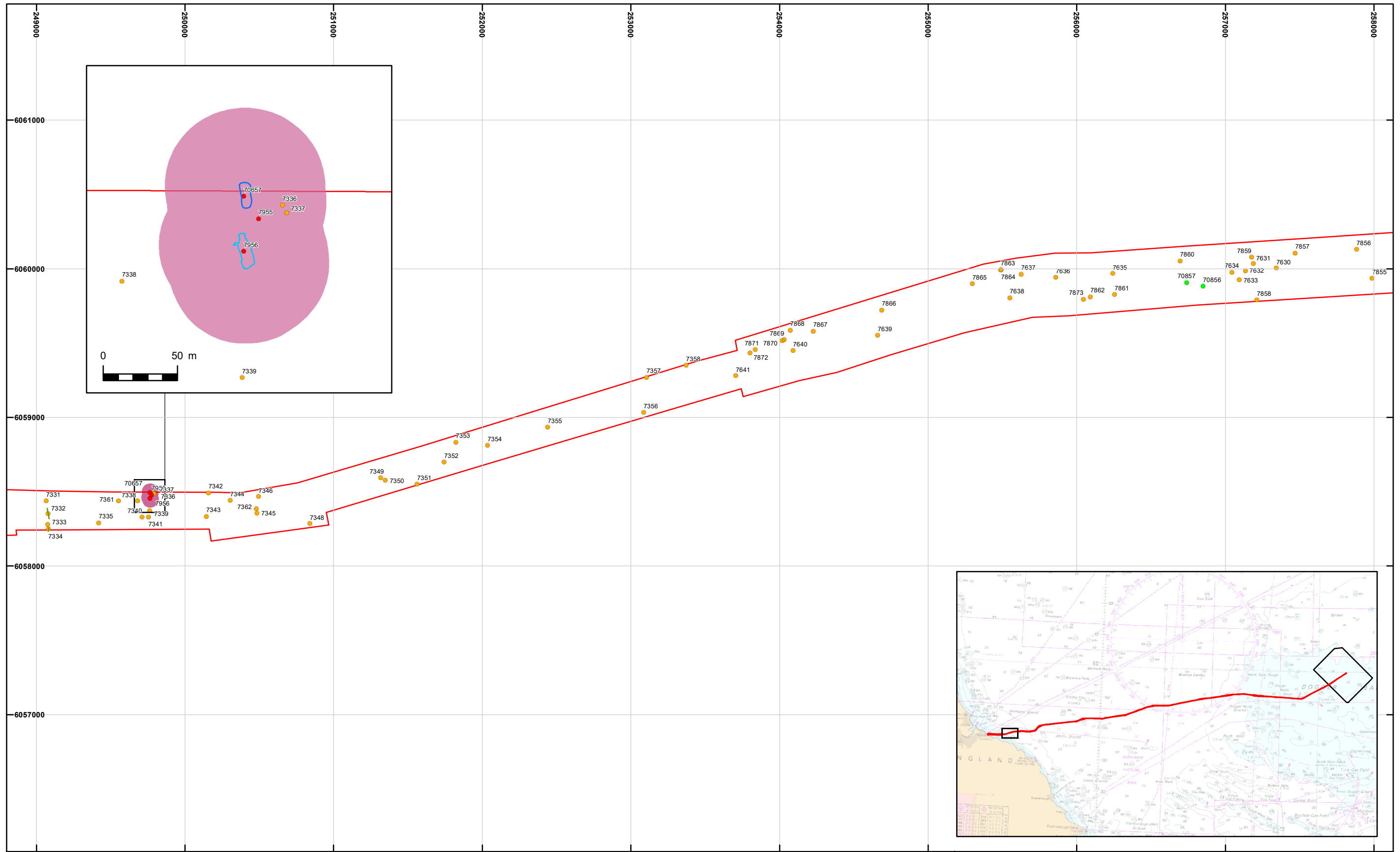
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Seabed features of archaeological potential

Figure 2v



Sofia array area
 Proposed Archaeological Exclusion Zones

OFTO geophysical study area
 Linear features

Wreck
 Debris field

- Seabed feature of archaeological potential**
- A1: Anthropogenic origin of archaeological interest
 - A2: Uncertain origin of possible archaeological interest
 - A3: Historic record of possible archaeological interest



Coordinate system: WGS84 UTM z31N

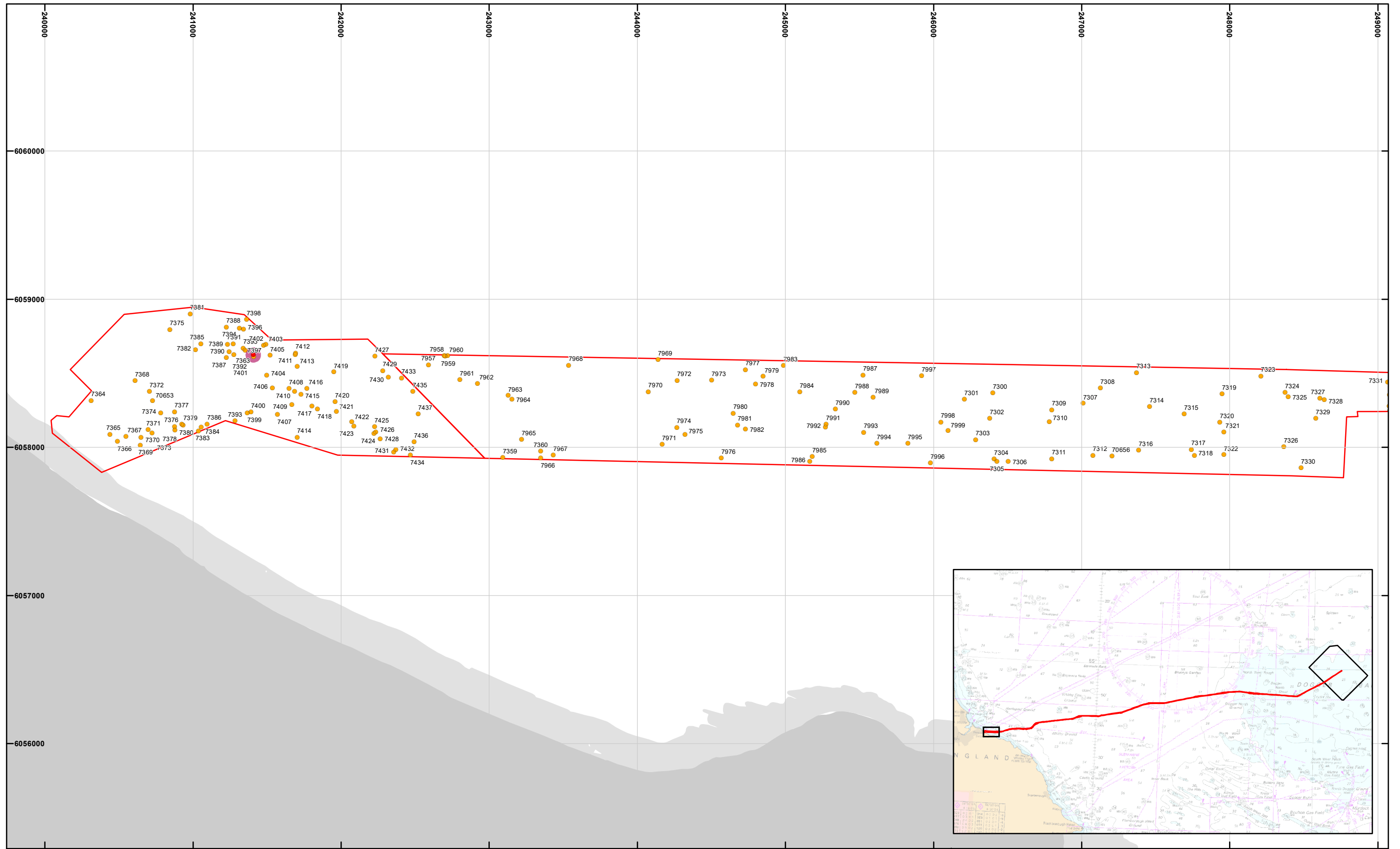
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Seabed features of archaeological potential

Figure 2w



-  Sofia array area
-  OFTO geophysical study area
-  Proposed Archaeological Exclusion Zones

- Seabed feature of archaeological potential**
-  A1: Anthropogenic origin of archaeological interest
 -  A2: Uncertain origin of possible archaeological interest



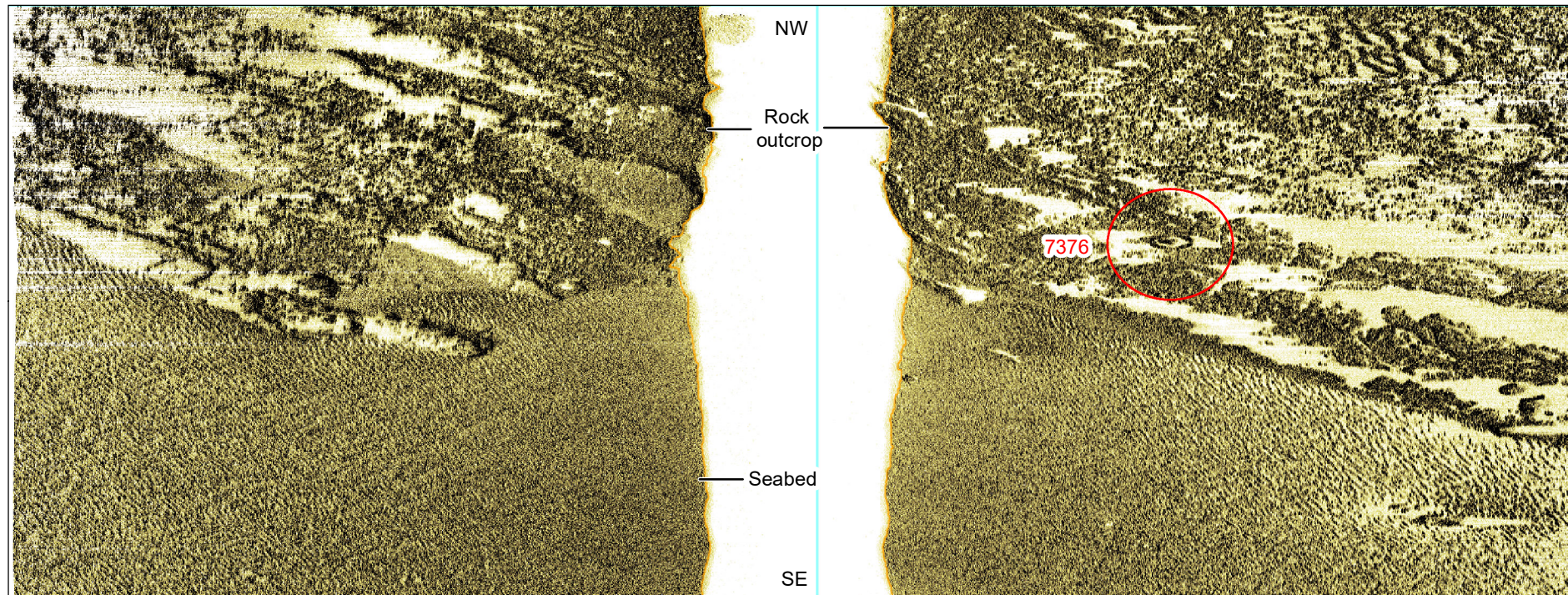
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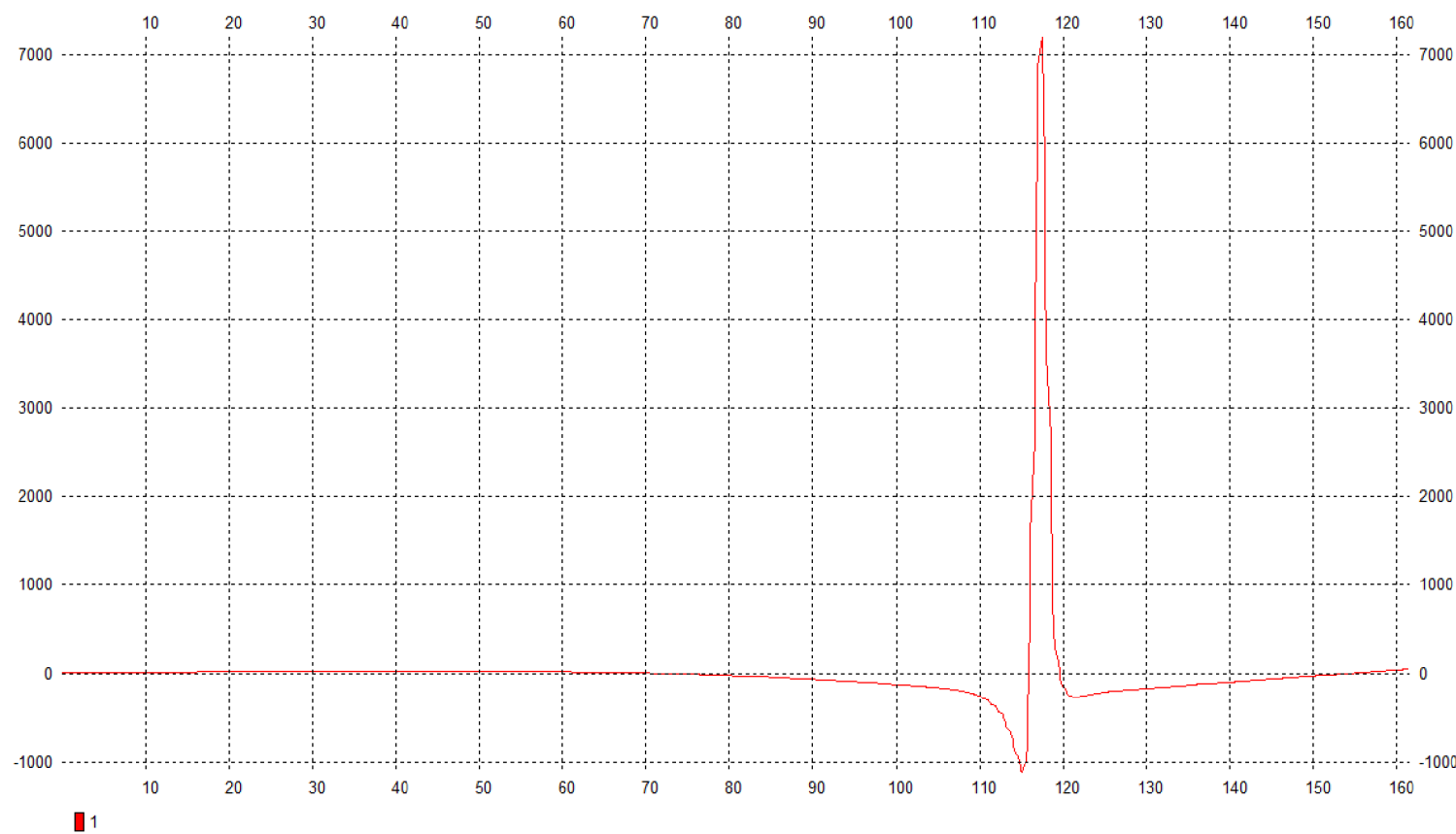
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Seabed features of archaeological potential

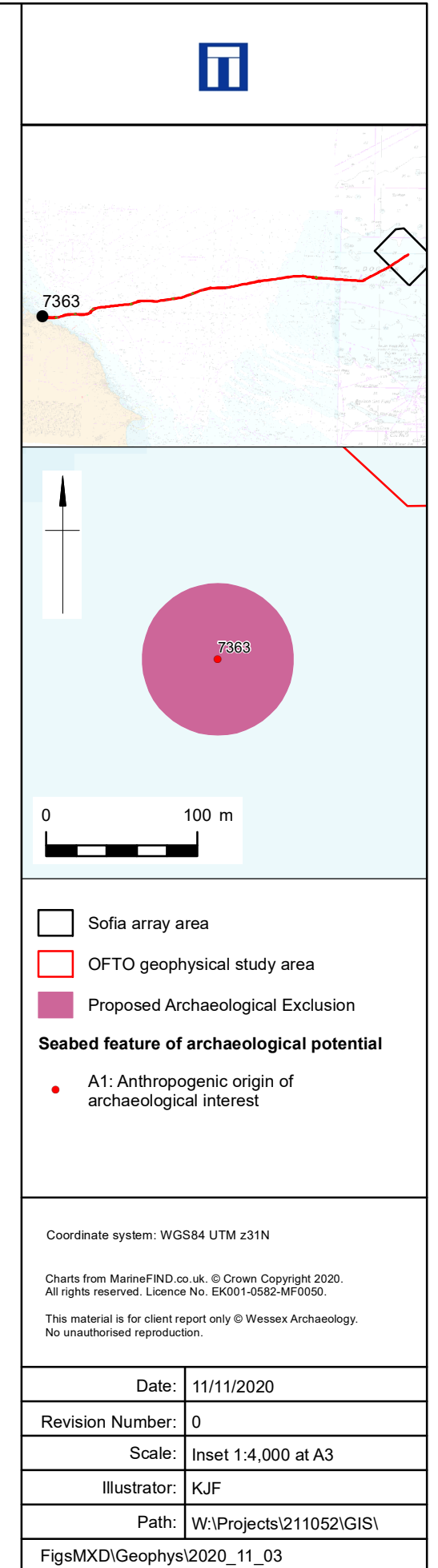
Figure 2x

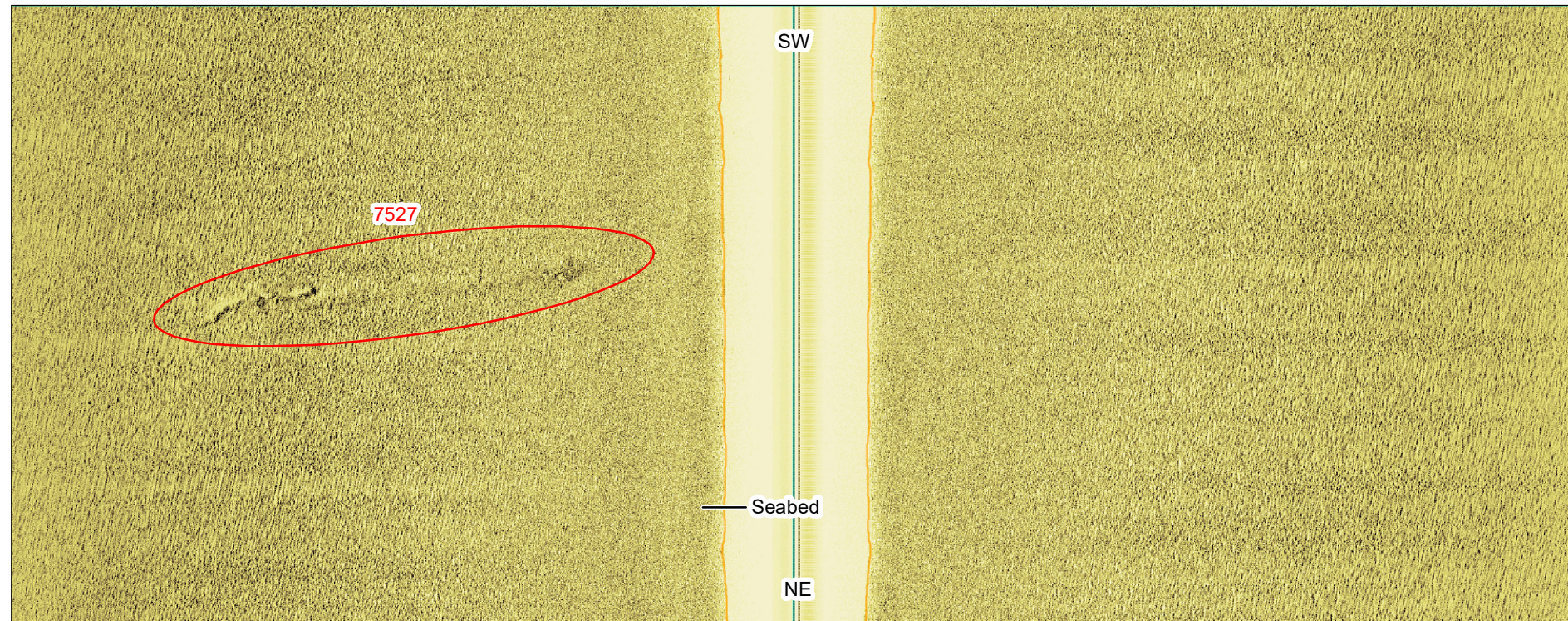


SSS waterfall image, 25 m range per channel, travelling northwest

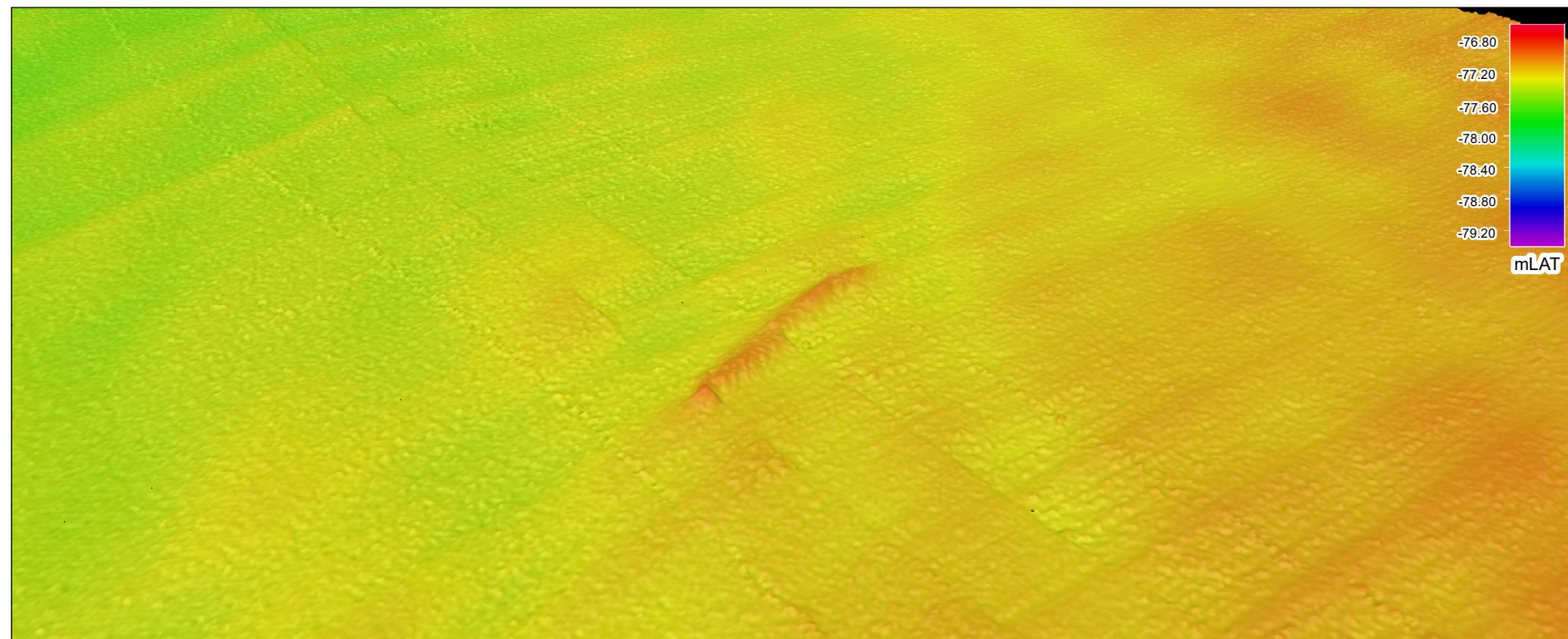


Mag. profile image, x = distance (m), y = magnetic field strength (nT)

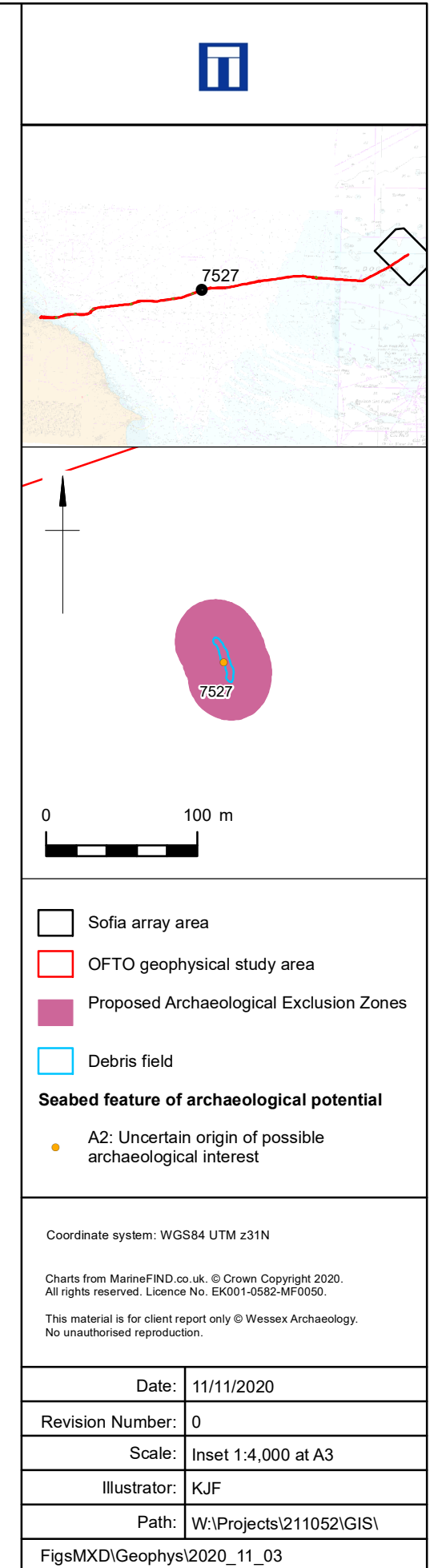


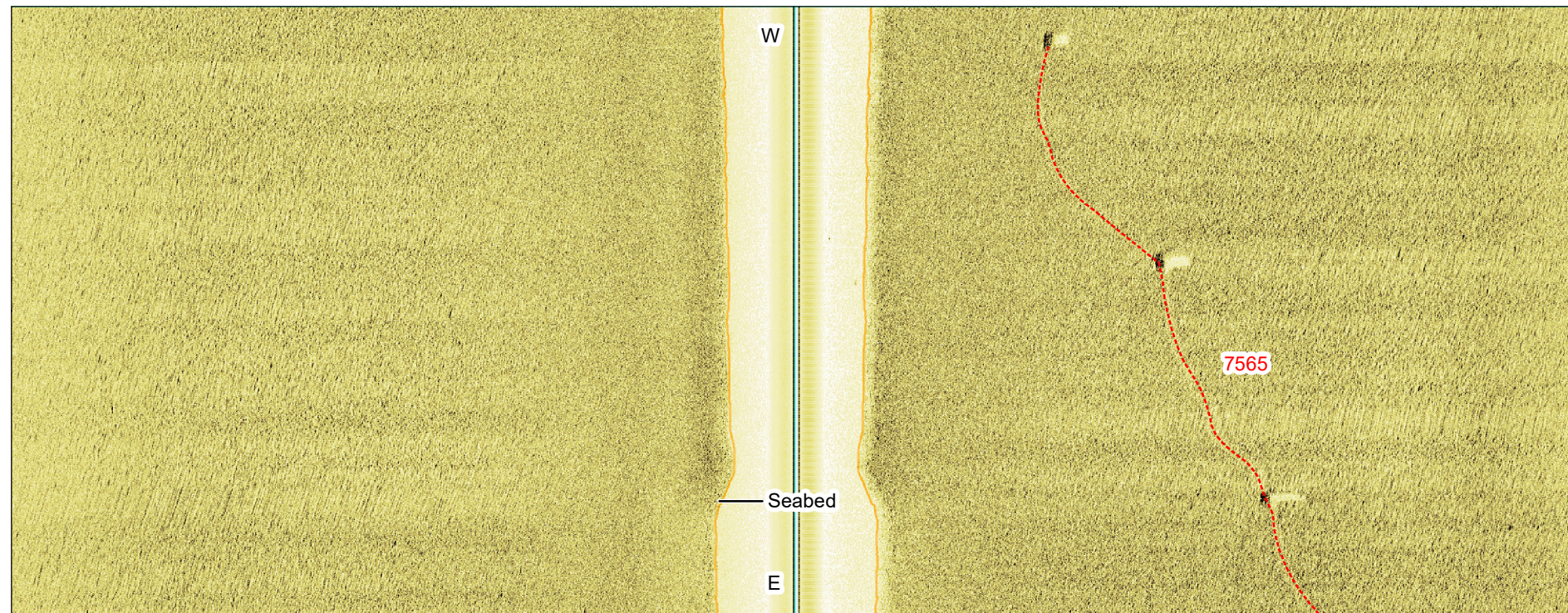


SSS waterfall image, 65 m range per channel, travelling southwest

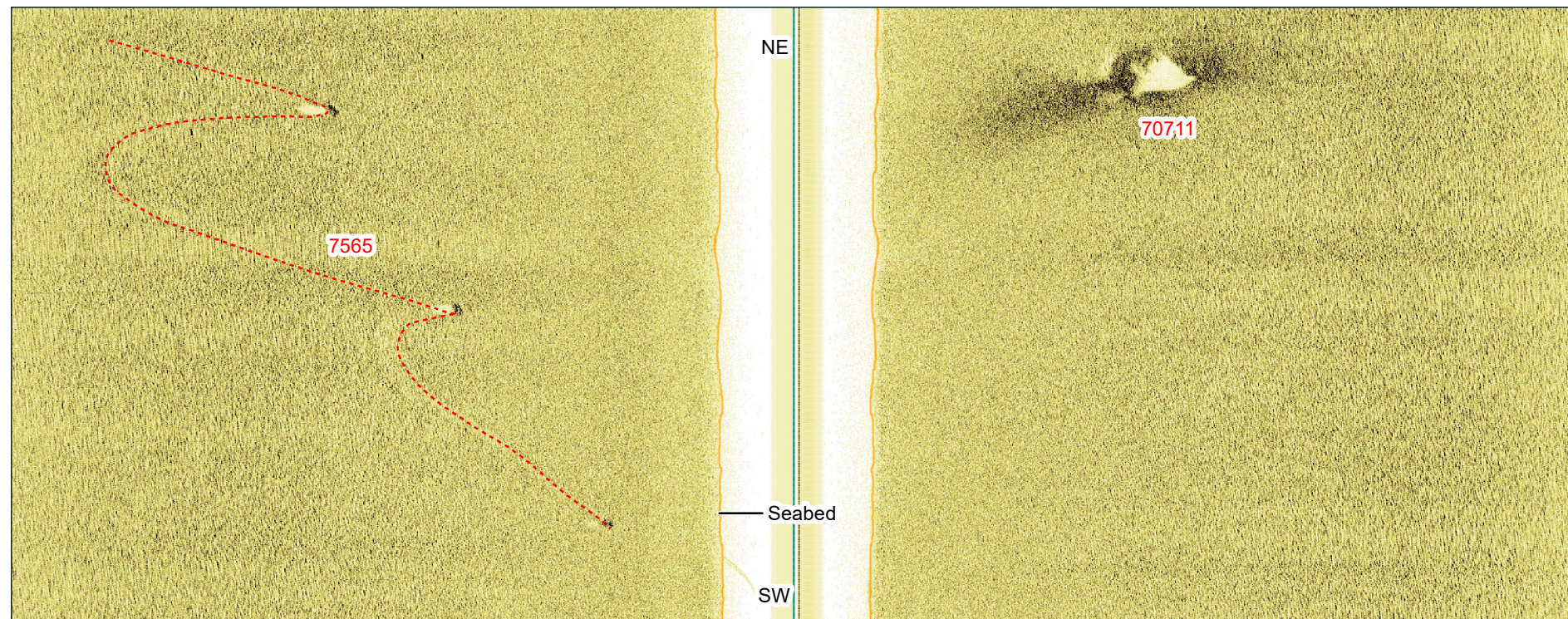


MBES grid image, x6 vertical exaggeration, viewing ESE

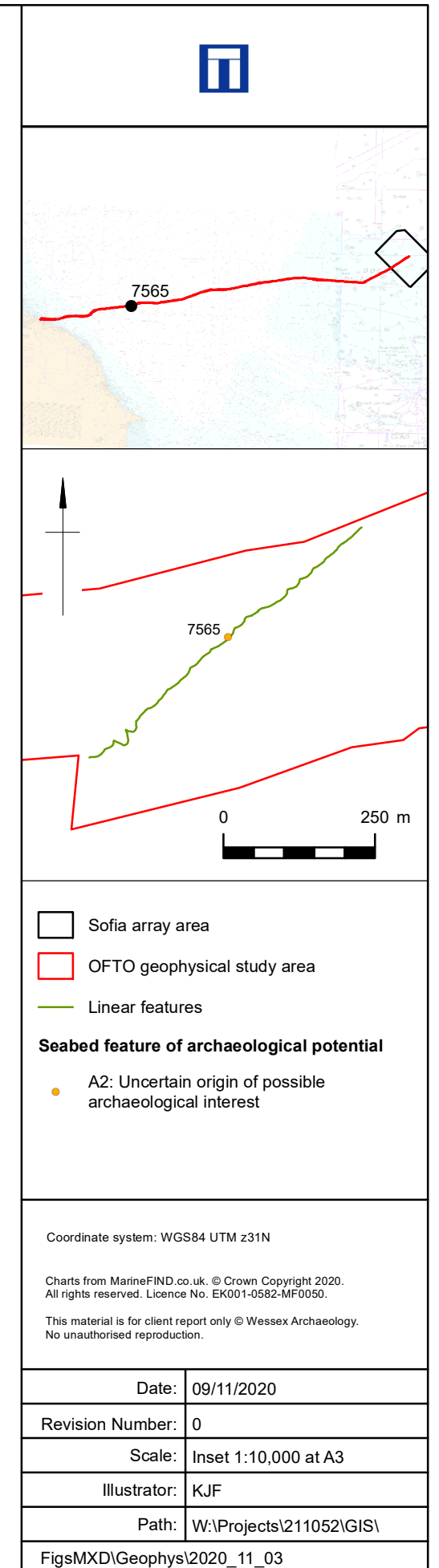




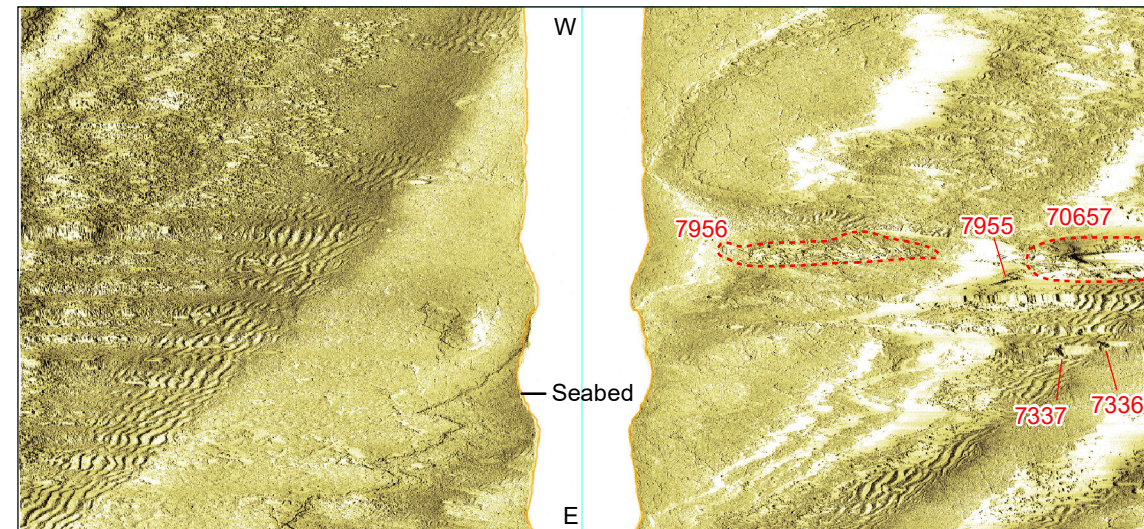
SSS waterfall image, 65 m range per channel, travelling west



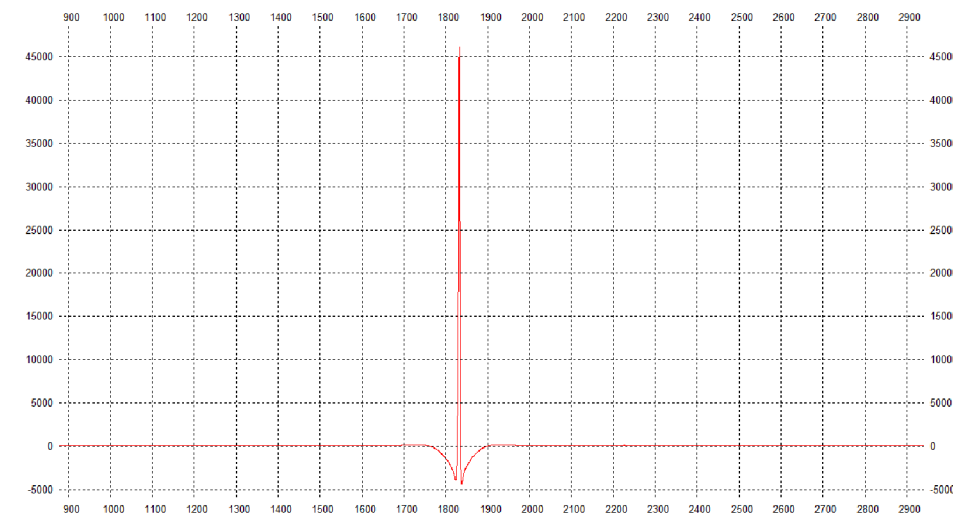
SSS waterfall image, 65 m range per channel, travelling northeast



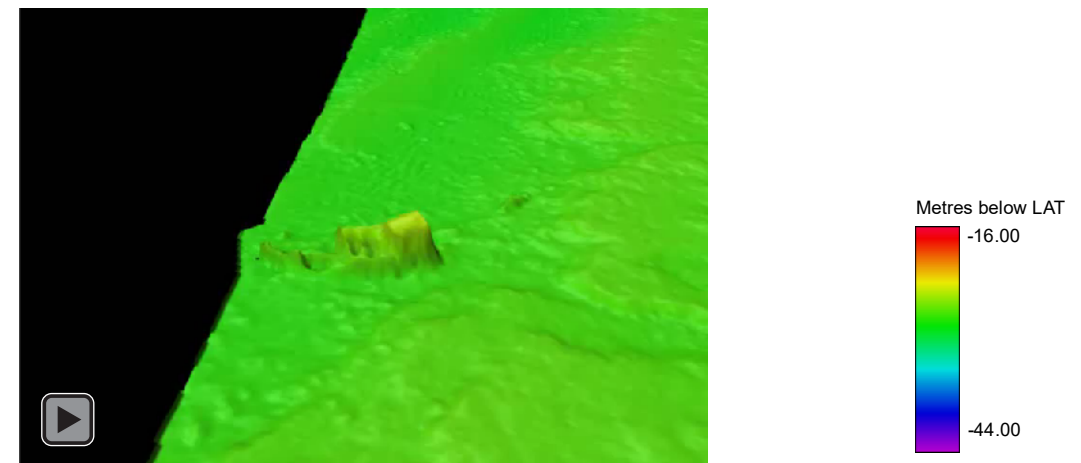
Location	249765 E 6058493 N	Area	OFTO Block A	
Archaeological Importance	High			
Geophysical survey dimensions and notes	<p>70657 is a distinct wreck site situated on the northern edge of Block A of the OFTO study area, orientated approximately north-south. The wreck is recorded by the UKHO as the HMS <i>Ruthin Castle</i>, and has been identified during previous phases of work.</p> <p>In the SSS data, the wreck is visible as an irregular area of debris measuring 14.9 x 7.5 x 3.5 m, with a single distinct large dark reflector with height towards the southern edge. An additional area of debris, 7956, is located approximately 30 m to the south, and is potentially the remains of the forward portion of the vessel.</p> <p>In the MBES data, the wreck is visible as an irregular mound with the tallest section to the south, which may be an intact boiler. No associated scour is visible</p> <p>There is a very large magnetic response of 50,579 nT associated with the wreck, indicating the presence of ferrous material or construction.</p>			
	Build	Type	Trawler	
		Construction	Assumed steel hulled, single boiler, triple expansion engine	
Dimensions (m)		Dimensions not recorded, 275 gross tonnage		
Loss	Shipyard	Shipyard not recorded, built 1916		
	Cause	Lost 21/04/1917 after striking a mine offshore Skinningrove		
Extent of Survival	<p>Appears very broken up with little structure remaining, which correlates with the known state of the vessel from dive reports in the UKHO record.</p> <p>The wreck was first identified in 1917, and officially charted in 1926. It was dived in 2003 and a bell recovered, confirming the identification as the HMS <i>Ruthin Castle</i>.</p> <p>Further diving in 2004 confirmed the wreck as an armed trawler lying on its port side and is well decayed and damaged. A gun, boiler, engine, and marker's plate were identified on the surrounding seabed. The section forward of the single boiler is said to be particularly damaged, and "broken up and spread about the seabed". This likely correlates with geophysical anomaly 7956.</p>			



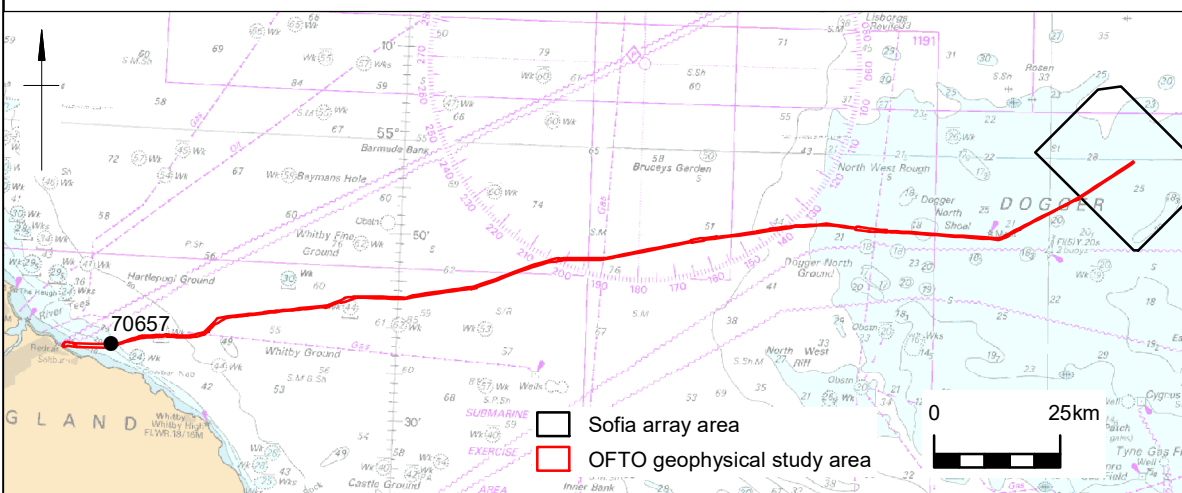
SSS waterfall image, 60 m range per change, travelling west



Mag. profile image, x = distance (m), y = magnetic field strength (nT)



MBES grid video, x1 vertical exaggeration



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