



# Southampton Container Terminal Berth Access Dredge

Archaeological Watching Brief

Ref: 249900.04  
March 2022



© Wessex Archaeology Ltd 2022, all rights reserved.

Portway House  
Old Sarum Park  
Salisbury  
Wiltshire  
SP4 6EB

[www.wessexarch.co.uk](http://www.wessexarch.co.uk)

Wessex Archaeology Ltd is a Registered Charity no. 287786 (England & Wales) and SC042630 (Scotland)

#### Disclaimer

The material contained in this report was designed as an integral part of a report to an individual client and was prepared solely for the benefit of that client. The material contained in this report does not necessarily stand on its own and is not intended to nor should it be relied upon by any third party. To the fullest extent permitted by law Wessex Archaeology will not be liable by reason of breach of contract negligence or otherwise for any loss or damage (whether direct indirect or consequential) occasioned to any person acting or omitting to act or refraining from acting in reliance upon the material contained in this report arising from or connected with any error or omission in the material contained in the report. Loss or damage as referred to above shall be deemed to include, but is not limited to, any loss of profits or anticipated profits damage to reputation or goodwill loss of business or anticipated business damages costs expenses incurred or payable to any third party (in all cases whether direct indirect or consequential) or any other direct indirect or consequential loss or damage.



## Document Information

Document title	Southampton Container Terminal Berth Access Dredge
Document subtitle	Archaeological Watching Brief
Document reference	249900.04
Client name	Associated British Ports
Address	Port of Southampton Oceans Gate Atlantic Way Southampton SO14 3QN
Site location	Southampton Container Port
County	Hampshire
National grid reference	SU 38069 12334
Planning authority	Southampton City Council/MMO/New Forest Parks Authority
Planning reference	
WA project name	As Above
WA project code	249900
Dates of fieldwork	28 & 31 January 2022, 3 February 2022.
Fieldwork directed by	Alistair Byford-Bates
Project management by	Daniel Atkinson
Document compiled by	Alistair Byford-Bates
Graphics by	Kitty Foster



## Quality Assurance

Issue	Date	Author	Approved by
1	25/03/2022	ABB	DEA

### DATA LICENCES

This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the UK Hydrographic Office and Her Majesty's Stationery Office.

© Crown copyright, [2022]. Wessex Archaeology Ref. HA294/007/316-01.

The following notice applies:

**NOT TO BE USED FOR NAVIGATION**

**WARNING:** The UK Hydrographic Office has not verified the information within this product and does not accept liability for the accuracy of reproduction or any modifications made thereafter.

This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and UK Hydrographic Office ([www.ukho.gov.uk](http://www.ukho.gov.uk)).

**NOT TO BE USED FOR NAVIGATION**

Contains Ordnance Survey data © Crown copyright and database rights [2022]



## Contents

Summary .....	iv
Acknowledgements.....	iv
<b>1 INTRODUCTION .....</b>	<b>5</b>
1.1 Project Background .....	5
<b>2 ARCHAEOLOGICAL BACKGROUND.....</b>	<b>5</b>
2.1 Co-ordinate system.....	5
2.2 Archaeological baseline summary .....	5
2.3 Previous archaeological work .....	6
2.4 Summary of known archaeological assets .....	6
<b>3 AIMS AND OBJECTIVES.....</b>	<b>8</b>
3.1 Aims .....	8
3.2 Objectives.....	8
<b>4 ARCHAEOLOGICAL RESULTS .....</b>	<b>9</b>
4.1 Introduction.....	9
4.2 Archaeological Monitoring.....	9
4.3 Issues.....	10
<b>5 CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>10</b>
<b>6 ARCHIVE STORAGE AND CURATION.....</b>	<b>10</b>
6.1 Preparation of archive.....	10
6.2 OASIS .....	10
6.3 Security copy .....	11
<b>7 OUTREACH AND SOCIAL MEDIA .....</b>	<b>11</b>
<b>8 COPYRIGHT .....</b>	<b>11</b>
8.1 Archive and report copyright .....	11
8.2 Third party data copyright .....	11
<b>REFERENCES .....</b>	<b>12</b>
Appendices.....	15
Appendix 1: OASIS record form .....	15

## List of Figures

<b>Cover</b>	Post-dredge Bathymetry
<b>Figure 1</b>	Pre-dredge Bathymetry
<b>Figure 2</b>	Seabed features of archaeological potential
<b>Figure 3</b>	Post-dredge Bathymetry
<b>Figure 4</b>	Working shot of the Dredger <i>Odin</i> crane
<b>Figure 5</b>	Working shot of loaded hopper barge.



## Summary

Wessex Archaeology was appointed by Associated British Ports (ABP) Southampton, to carry out an archaeological watching brief based on the previously prepared and approved written scheme of archaeological works for the proposed capital dredging area within Southampton Water known as the Container Terminal Berth Access Dredge.

The project involved the extension of the existing tug manoeuvring area, targeted widening of the existing navigation channel, the side slope, and the Bury Swinging Ground to enable safe and adequate vessel access to berth two. The dredged material was disposed of at the Nab Tower disposal ground, located to the south-east of the Isle of Wight.

The works was carried out using a backhoe dredger and transfer barges to dispose of the material. It involved the dredging of 91,432 m<sup>3</sup> of material. No archaeological material was recovered either during the attendance of the project archaeologists or through the project Protocol for Archaeological Discoveries.

## Acknowledgements

Wessex Archaeology would like to thank the follow for their assistance and support during this project, Chris Bolton, Ian Richards, and Sue Simmonite of ABP Southampton for commissioning the project, and their support and help during the watching brief phase. Additionally, Dennis de Vries, Renato Roelands, Han Dorgelo, and Paul Schouwenaar from Boskalis, along with the crew of the *Odin* for their help and support.

The watching brief was carried out by Lowri Roberts and Alistair Byford-Bates, with the latter compiling this report. Kitty Foster produced the illustrations. Geophysics data was prepared by Simon Varley, with QA carried out by Dan Atkinson and Tim Marples. The project was managed by Coastal and Marine Director Dan Atkinson.

# Southampton Container Terminal Berth Access Dredge

## Archaeological Watching Brief

### 1 INTRODUCTION

#### 1.1 Project Background

- 1.1.1 Wessex Archaeology was appointed by Associated British Ports (ABP) Southampton, to carry out an archaeological watching brief based on the previously prepared and approved written scheme (Wessex Archaeology 2021) of archaeological works for the proposed capital dredging area within Southampton Water known as the Container Terminal Berth Access Dredge. The site is centred on NGR SU 38069 12334 (Figure 1).
- 1.1.2 Previous archaeological work encompassed assessment of the site within the wider 'Southampton Approach Channel Dredge' including an archaeological desk-based assessment (Wessex Archaeology 2008a), an assessment of geophysical survey data (Wessex archaeology 2008b), an assessment of borehole records and vibrocore samples (2008c), a written scheme of investigation (WSI) for the Main Channel widening works at Marchwood (Wessex Archaeology 2012), and a WSI for the Southampton Approach Channel dredge (Wessex Archaeology 2013).
- 1.1.3 The project involved the extension of the existing tug manoeuvring area, targeted widening of the existing navigation channel, the side slope, and the Bury Swinging Ground to enable safe and adequate vessel access to berth two (Figure 1). The dredged material was disposed of at the Nab Tower disposal ground, located to the south-east of the Isle of Wight.
- 1.1.4 The works was carried out using a backhoe dredger and transfer barges to dispose of the material. It was expected to involve the dredging of 94,500 m<sup>3</sup> of material. This methodology was used for the previous works within the container terminal and Southampton Water.

### 2 ARCHAEOLOGICAL BACKGROUND

#### 2.1 Co-ordinate system

- 2.1.1 Positions are reported in the British National Grid coordinate system for all aspects of this report, with heights calculated as distance above Ordnance Datum (Newlyn), as defined by OSGM15 and OSTN15.

#### 2.2 Archaeological baseline summary

##### Introduction

- 2.2.1 There was the potential for material from the prehistoric period, and maritime and aviation remains, to occur throughout the area, with them most likely to be preserved in the areas of the scheme which had not been dredged to date (Figure 1). While the initial wider assessment of the area considered the archaeological potential to be high, areas that had previously been dredged since the 1960s under capital and maintenance dredge campaigns were considered to have significantly diminished potential for heritage assets relating to maritime and aviation activities to be present. Where anomalies were identified in these areas, they are likely to post-date 1960.

## 2.3 Previous archaeological work

- 2.3.1 Baseline reviews of the known and potential archaeology within the area were carried out by Wessex Archaeology (ABP 2008; Chapter 19) and revealed that the wider area contained 120 sites of archaeological interest between the Fawley and Nab Shoal areas.
- 2.3.2 Previous dredging within the MSA (Wessex Archaeology 2021a) resulted in the recovery of 89 unstratified finds, including artefacts and environmental material, recovered during a watching brief on dredging work at Southampton Docks Berth 207 in 1995, along with evidence of peat and estuarine deposits.

## 2.4 Summary of known archaeological assets

### *Introduction*

- 2.4.1 Baseline reviews of the known, and potential archaeology within the wider area have been previously carried out under the work for the Southampton Approach Channel Dredge (SACD) forming part of the environmental statement (ABP 2008, Chapter 19) and desk-based assessment and associated works (Wessex Archaeology 2008a, b, c). These studies were supplemented by new data searches covering the 2 km MSA centred on SCT2 (Wessex Archaeology, 2021a). This data is summarised below.
- 2.4.2 *Palaeogeographic Assessment*
- 2.4.3 The Southampton water and approach channel area has been shaped by three major glaciations over the past 970,000 years, leading to lower sea levels. The consequence of this has been an environment that has been open to the occupation and exploitation by early hominins moving into the area.
- 2.4.4 The geoarchaeological assessment (Wessex Archaeology 2008c, b; 2012, 2014) identified four major sedimentary units in the wider Solent area:
- Unit 1: Tertiary Bedrock
  - Unit 2: Pleistocene valley gravels
  - Unit 3: Pleistocene and Holocene alluvium and peat
  - Unit 4: Recent alluvial sediments
  - In addition to these there is in the area of the berths Unit 5, made ground.
- 2.4.5 A review of borehole and vibrocore logs and archaeological recording of vibrocore samples of geoarchaeological interest, with reference to sub-bottom geophysical data (Wessex Archaeology 2008b, 2012, 2014) was previously undertaken for the wider project area and the reconstruction of Berths 201 and 202.
- 2.4.6 The geoarchaeological sequence around Berths 201/202 is Unit 1 Tertiary bedrock, Unit 2 sands and gravels, Unit 3 Holocene peat and alluvial sediments, Unit 4, recent estuarine alluvium, and Unit 5 Made Ground. Due to its proximity to the proposed dredging, it is felt there would be little variation between the two locations.



- 2.4.7 The underlying Tertiary bedrock (Unit 1) occurs across the entire study area that was subjected to geophysical survey and vibrocoring. It is thought to comprise predominantly of sands and clays of the so-called Wittering, Early Sand and Marsh Farm formations.
- 2.4.8 Pleistocene valley gravels (Unit 2) have been identified within all but one of the previously dredged areas. These are sands and gravels, which appear from the geophysical survey to be up to around 10 m in thickness overlying the Tertiary bedrock.
- 2.4.9 Finer grained Holocene and Pleistocene alluvial sediments (sands, silts, and clays) and peat (Unit 3) were also interpreted. Peat deposits were identified within vibrocores throughout the proposed dredging areas (Wessex Archaeology 2008b, 2012, 2014).
- 2.4.10 The uppermost sediment analysed and recorded were alluvial, or estuarine sediments (Unit 4), identified within all the dredging areas and reaching a maximum thickness of around 5 metres. It is unlikely that prehistoric archaeological material will be identified in this unit, however, there is the potential for more recent maritime archaeological remains to be present within or at the surface of this unit.
- 2.4.11 The Unit 5, Made Ground, was not assessed, as it is viewed to be of low palaeoenvironmental and geoarchaeological interest as it relates to the 20<sup>th</sup> century port construction and reclamation related to it (Wessex Archaeology 2014).
- 2.4.12 The potential for submerged prehistoric sites and material is high in areas where Pleistocene deposits are present. The presence of Unit 2, a possible Pleistocene fluvial terrace deposit, is of interest as it likely corresponds to the Palaeolithic archaeological period (c. 650,000 to c.10,500 years BP (Before Present)). A relatively large number of Palaeolithic artefacts (predominantly flint tools) thought to derive from similar terrace deposits have been recovered in the Southampton area (Bridgland 2001).
- 2.4.13 More recent prehistoric archaeological material may be found on the surface of Unit 2 and within Unit 3. It is thought to comprise early Holocene (c.11,700 to 5000 years BP) alluvium and peat. Peat deposits are found across the Southampton Water and the Solent area during this period when freshwater conditions prevailed. By c. 3200 years BP peat formation had largely ended, represented by a change to brackish water and marine mineral sediments due to the transition towards estuarine conditions and thereafter only localised peats formed (Long *et al.* 2000).
- 2.4.14 The Mesolithic record of the UK suggests a strong relationship between human activity and coasts, wetlands, rivers, and streams. These areas provide rich sources of food and resources for hunter/gatherer groups, as well as important transport routes inland or between islands (Waddington and Bonsall 2016). Any surviving sedimentary deposits from this period could potentially contain both *in situ* and derived artefacts from a time when these coastal and littoral landscapes, now submerged by the sea, was known to be extensively used by early human populations (Bicket and Tizzard 2015). In addition, the area is likely to have been marsh/swamp for much of the Mesolithic and Neolithic, periods which saw extensive use of coastal and estuarine zones for subsistence. The estuarine silts are likely to preserve any features present from these periods, such as fish traps, if they are present.
- 2.4.15 The presence of Mesolithic and Neolithic palaeo-environmental data from the surrounding area would suggest that there is a low to medium potential for more to be found within the estuarine and fluvial sediments within the MSA. However, the results of the

geoarchaeological assessment indicated that there is limited potential for palaeo-environmental data within the marine element of the project area (Wessex Archaeology 2008b, 2014), though it should be noted that there is the potential for maritime archaeological remains to be contained in the Unit 3 material, with material previously recovered during dredging work within the study area.

#### 2.4.16 *Known maritime*

2.4.17 There are four wrecks that fall within the 2 km MSA, though none are within the proposed dredging area. None are subject to statutory protection.

2.4.18 Three monument records fall within the MSA identified during previous work alongside Berth 207 (SCT1). There is also a listed tide mill, and the King George V dry dock. Two scheduled monuments, the Redbridge old bridges, also lie within the MSA.

#### *Known aviation*

2.4.19 There were no recorded aviation losses within the MSA.

### **3 AIMS AND OBJECTIVES**

#### **3.1 Aims**

3.1.1 The specific aim of the watching brief was to mitigate against the impact that the berth access dredge might have against any unknown archaeological receptors within the planned dredging area.

#### **3.2 Objectives**

3.2.1 The objectives of the watching brief were as follows:

- to fulfil the requirements of Archaeological Curator (Historic England) and the MMO in respect of archaeological monitoring and mitigation works associated with this project;
- to mitigate the impact of dredging within the Southampton Container Terminal Berth Access Dredge via appropriate and recognised strategies;
- to establish the position and extent of Archaeological Exclusion Zones (AEZs) that may be required, and to furnish methods for their monitoring, modification and/ or removal in the future;
- to propose measures for mitigating effects upon any archaeological material that may be encountered during the operations associated with the scheme including the watching brief on the dredger; and
- to establish the reporting and archiving requirements for the archaeological works undertaken during the project.

#### **3.3 Geophysical Background**

3.3.1 The reader is directed to Wessex Archaeology (2021c) for the full details of the geophysical data assessment. A summary is contained below.

- 3.3.1 The report consists of an assessment of marine geophysical survey data comprising Sidescan Sonar, Magnetometer, Multibeam Echosounder and Sub-Bottom Profiler datasets, acquired by SAND Geophysics Ltd during survey in September 2021. The study area comprises an approximately 300 x 130 m area of the seabed.
- 3.3.2 A total of 64 seabed anomalies of archaeological potential were identified within the area of interest. No discrete palaeolandscape features of archaeological potential were identified within the study area. The previously undisturbed sediments along the south-western edge of the study area were considered to have the potential to contain in-situ and derived artefacts and preserved palaeoenvironmental material (Figure 2).
- 3.3.3 No anomalies were assigned an A1 archaeological rating (anthropogenic origin of archaeological interest), 37 were assigned an A2\_H archaeological rating (Anomaly of likely anthropogenic origin but of unknown date; may be of archaeological interest or a modern feature) and 27 were assigned an A2\_L archaeological rating (Anomaly of possible anthropogenic origin but interpretation is uncertain; may be anthropogenic or a natural feature). These include three items of possible debris, one debris field, one seabed disturbance, two rope/chain features, one bright reflector and 56 magnetic anomalies, possibly indicating buried ferrous debris.

### **3.4 Recording Methodology**

- 3.4.1 Archaeological recording comprised of conterminous notes, and digital photography based on the methodology and RAMS approved by Historic England and ABP (Wessex Archaeology 2021a, 2021b).
- 3.4.2 Any finds would have been assessed as to their archaeological potential and reported to the Receiver of Wreck under the requirements of the *Merchant Shipping Act (1995)*.

## **4 ARCHAEOLOGICAL RESULTS**

### **4.1 Introduction**

- 4.1.1 A total of four monitoring visits took place during the capital dredging carried out as part of the Southampton Container Terminal Berth Access Dredge. No archaeological finds were identified or reported through the project Protocol for Archaeological Finds.
- 4.1.2 No archaeological finds were observed by the archaeologists or reported through the project Protocol.

### **4.2 Archaeological Monitoring**

- 4.2.1 Archaeological monitoring visits occurred on the 19, 28, and 31 January, and the 3 February, with a further two visits cancelled due to the COVID outbreak amongst the crew. The final day of dredging was the 13 February. A member of the Wessex Archaeology staff attended the daily coordination meetings to stay abreast of progress, and to liaise with the dredger crew to ensure attendance during the phases of the project where the dredging occurred in areas identified as having the highest archaeological potential (essentially areas not previously dredged).
- 4.2.2 A total of 91,432m<sup>3</sup> gross was removed with the finished profile shown in Figure 3.
- 4.2.3 The amount of material observed was dependant on availability of hopper barges, vessel movements with the port area, and maintenance schedules on the dredger. This meant

overall one hopper barge per visit was observed being loaded, comprising between 1,000-1,200 tonnes of material (Figure 4). The dredger bucket had a capacity 18m<sup>3</sup> or approximately 25 tonnes (Figure 5).

- 4.2.4 No archaeological finds were observed, however, two beer cans, and a short length of chain with concrete blocks either end were observed falling into the hopper.
- 4.2.5 No finds were identified or linked to the geophysical anomalies identified during the survey stage of the project.

### **4.3 Issues**

- 4.3.1 Monitoring visits to the dredger were severely curtailed due to an outbreak of COVID 19 amongst the dredger crew, so preventing the project archaeologists visiting for a significant part of the project.
- 4.3.2 A good relationship with dredger crew and UXO staff who formed a ship based 'bubble' did mitigate against this issue to a certain extent, as there was an observer from the UXO team at all times monitoring the arisings, and who had previous experience working with archaeologists, and reporting material though Protocols
- 4.3.3 The liquified nature of the bucket contents meant that there was the potential for smaller heavier objects to sink to the bottom of the bucket, and therefore not be seen during monitoring.

## **5 CONCLUSIONS AND RECOMMENDATIONS**

- 5.1.1 Although no archaeological finds were identified during the project, the good working relationship between archaeologists and dredger crew, with their proactive approach to monitoring, suggests the methodology was appropriate in the circumstances.

## **6 ARCHIVE STORAGE AND CURATION**

### **6.1 Preparation of archive**

- 6.1.1 The complete project archive will be prepared following the standard conditions for the acceptance of excavated archaeological material, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014d; Brown 2011; ADS 2013). The archive will usually be deposited within one year of the completion of the project, with the agreement of the Client.
- 6.1.2 All digital data will be considered part of the primary archive and will accord with the procedures recommended by The Crown Estate, Marine Environment Data and Information Network (MEDIN), Archaeological Data Service (ADS) and the accepting institution.
- 6.1.3 Data will be compiled in a format suitable for submission of Monument, Event and Source records for entry into the NRHE OR the Southampton Historic Environment Record (terrestrial and inshore).

### **6.2 OASIS**

- 6.2.1 The archaeological and other reports from this project will be added to the project OASIS record, as well as integrated into local archaeological records, and published through the Archaeological Data Service ArchSearch catalogue.

### **6.3 Security copy**

- 6.3.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

## **7 OUTREACH AND SOCIAL MEDIA**

- 7.1.1 Wessex Archaeology is a registered charity with the aim of using archaeology to inspire and engage the general public and local communities. Public engagement can range from a news item on social media, press releases, open days, and volunteer involvement.
- 7.1.2 While considering the suitability of projects particularly concerning issues such as confidentiality, Wessex Archaeology will, in consultation with the Client, seek where possible opportunities to disseminate results and engage with the local community.

## **8 COPYRIGHT**

### **8.1 Archive and report copyright**

- 8.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by the Retained Archaeologist under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.
- 8.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to the Retained Archaeologist for the purposes of archaeological research, or development control within the planning process.

### **8.2 Third party data copyright**

- 8.2.1 This document, the evaluation report and the project archive 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 the Retained Archaeologist will be able to provide for limited reproduction under the terms of our own copyright licences, 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* regarding multiple copying and electronic dissemination of such material.

## REFERENCES

- Associated British Ports, 2008. *Environmental Statement for Port of Southampton: Southampton Approach Channel Dredge* (Updated by Further Information)
- ADS 2013 *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data Service & Digital Antiquity Guides to Good Practice
- Bicket, A. and Tizzard, L. 2015 *A review of the submerged prehistory and palaeolandscapes of the British Isles*. Proceedings of the Geologists' Association, vol. 26, pp. 643-663
- Bridgland, D. R. 2001 The Pleistocene evolution and Palaeolithic occupation of the Solent River. In: *Palaeolithic Archaeology of the Solent River*, Wenban-Smith, F.F., Hosfield, R.T. (eds). Lithic Studies Society Occasional Paper 7:15-25
- Brown, D H 2011 *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum (revised edition)
- Chartered Institute for Archaeologists (CIfA) 2020a *Standard and guidance for archaeological field evaluation*. Reading, CIfA
- CIfA 2014b *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Reading, CIfA
- CIfA 2014c *Standard and guidance for an archaeological watching brief*. Reading, CIfA
- CIfA 2020d *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. Reading, CIfA
- CIfA 2014e *Code of Conduct*. Reading, CIfA
- CIfA 2019 *Regulations for Professional Conduct*. Reading, CIfA
- CIfA 2020b *Standard and Guidance for nautical archaeology recording and reconstruction*. Reading, CIfA
- CIfA 2017 *Updated Guidelines to the Standards for Recording Human Remains*. Reading, CIfA
- Department for Environment, Food and Rural Affairs (DEFRA) 2009 *Our Seas – A Shared Resource: High Level Marine Objectives*;
- English Heritage (now Historic England) 1998 *Identifying and Protecting Palaeolithic Remains: Archaeological Guidance for Planning Authorities and Developers*;
- English Heritage (now Historic England) 2002 *Military Aircraft Sites: Guidance on their Significance and Future Management*;
- English Heritage (now Historic England) 2008 *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*;

- English Heritage (now Historic England) 2011 *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*. Second Edition
- English Heritage (now Historic England) 2013 *Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes*
- Hey, G.; Hind, J., 2014, *Solent-Thames Research Framework for the Historic Environment Resource Assessments and Research Agendas*. Project Report. Oxford Wessex
- Historic England 2012 *Ships and Boats: Prehistory to Present – Designation Selection Guide*;
- Historic England 2015a *Management of Research Projects in the Historic Environment: the MoRPHE project managers' guide*. Swindon, Historic England
- Historic England 2015b *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Swindon, Historic England
- Historic England 2015c *Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning: 2*.
- Historic England 2016a *Preserving Archaeological Remains: Decision-taking for Sites under Development*
- Historic England 2016b *The Assessment and Management of Marine Archaeology in Port and Harbour Development*
- Joint Nautical Archaeology Policy Committee 2006 *Code of Practice for Seabed Development, JNAPC*
- Long, A. J., Scaife, R. G., and Edwards, R. J. 2000. Stratigraphic architecture, relative sea-level, and models for estuary development in southern England: new data from Southampton Water. In : Pye, K., and Allen, J. R. L. (eds) *Coastal and Estuarine Environments: sedimentology, geomorphology and geoarchaeology*. Geological Society, London, Special Publications. 175. 253-279
- MMO 2013. *Seascape Assessment for the South Marine Plan Areas, MCA 5: the Solent*.
- McKinley, J I 2013 'Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts' in S Tarlow and L Nilsson Stutz (eds) *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford University Press 147-171
- McKinley, J I and Roberts, C 1993 *CfA Technical Paper No 13 Excavation and post-excavation treatment of cremated and inhumed human remains*.
- Museums and Galleries Commissions 1992 *Standards in the Museum Care of Archaeological Collections*
- PIANC 2014 *Dredging and Port Construction: Interactions with Features of Archaeological or Heritage Interest*. PIANC Guidance Document No. 124-2014. PIANC: The World Association for Waterborne Transport Infrastructure
- Ransley, J., et al., 2013 *People and the Sea: A Maritime Archaeological Research Agenda for England* (Research Reports, 171), York, GB. Council for British Archaeology
-



- Robinson, W 1998 *First Aid for Underwater Finds*. Archetype Publications Ltd
- Society of Museum Archives (SMA) 1993 *Selection, Retention and Dispersal of Archaeological Collections*
- Society of Museum Archives (SMA) 1995 *Towards an Accessible Archaeological Archive*
- United Kingdom's Institute for Conservation (UKIC) 1984 *Conservation Guidelines No 2*
- Waddington, C and Bonsall, C., 2016 *Archaeology and Environment of the North Sea Littoral. A case Study from Low Hauxley*, Archaeological Research Services Ltd Bakewell.
- Watkinson, D and Neal, A V 1998 *First Aid for Finds*. United Kingdom Institute for Conservation and Rescue: The British Archaeological Trust
- Wessex Archaeology 2008a. *Southampton Approach Channel Dredge. Archaeological Desk-based Assessment*. Unpublished Report Ref.:68530.03
- Wessex Archaeology 2008b. *Southampton Approach Channel Dredge. Archaeological Assessment of Geophysical data*. Unpublished Report Ref.: 68530.01
- Wessex Archaeology 2008c. *Southampton Approach Channel Dredge. Southampton Vibrocores. Stages 1 and 2 Archaeological Report*. Unpublished Report Ref.: 68530.02.
- Wessex Archaeology 2012. *Main Channel Widening (Marchwood) Works, Southampton Water, Hampshire*. Unpublished Report Ref: 68531.01
- Wessex Archaeology 2013. *Southampton Approach Channel Dredge, Southampton Water, Hampshire Archaeological Written Scheme of Investigation*. Unpublished Report Ref: 68531.02
- Wessex Archaeology 2014. *Southampton Approach Channel Dredge Main Channel Widening (Marchwood), and Reconstruction of Berths 201 and 202. Geoarchaeological and palaeoenvironmental assessment*. Unpublished Report Ref: 68532.01
- Wessex Archaeology 2021a. *Southampton Container Terminal Berth Access Dredge Archaeological Method Statement*. Unpublished Report Ref: 249900.02
- Wessex Archaeology 2021b. *Southampton Container Terminal Berth Access Dredge Archaeological RAMS*. Unpublished Report Ref: 249900.03
- Wessex Archaeology 2021c. *Southampton Container Terminal Berth Access Dredge Archaeological assessment of geophysical data*. Unpublished Report Ref: 249901.01





## Appendices

### Appendix 1: OASIS record form

<b>OASIS ID</b>	wessexar1-XXX
-----------------	---------------

<b>Activity Type</b>	
<b>Project identifier</b>	249900
<b>Activity type</b>	Archaeological watching brief.
<b>Reason for investigation</b>	Planning requirement
<b>Development type</b>	Infrastructure > Port development
<b>Planning reference</b>	Input if have one (marine license, etc)

<b>Location</b>	
<b>Site name</b>	Container terminal dredge
<b>Site code</b>	249900
<b>Land use</b>	Marine

<b>Reviewers / Admin Area</b>	
<b>Historic Environment Record(s)</b>	Historic England National Marine Heritage Record (if marine) Archaeology Data Service HER (if applicable)
<b>Archive type</b>	Digital Archive
<b>Museum/archive</b>	Archive
<b>National organisation</b>	Historic England
<b>HER identifiers</b>	
<b>National organisation identifiers</b>	

<b>Work Undertaken</b>	
<b>Title</b>	Southampton Container Terminal Berth Access dredge Archaeological Watching Brief
<b>Description / Methodology</b>	Archaeological watching brief of capital dredge, with protocol for archaeological discoveries.
<b>Previous / Future work</b>	Yes <i>Not known</i>
<b>Start Date / End date</b>	07.06.2021 30.03.2022
<b>Scientific dating</b>	No
<b>Environmental sampling</b>	No
<b>Associated identifiers</b>	none

<b>Report Details</b>	
<b>Title</b>	Southampton Container Terminal Berth Access dredge Archaeological Watching Brief



<b>Author</b>	Alistair Byford-Bates
<b>Publication date</b>	2022
<b>Publisher or Producer</b>	Wessex Archaeology
<b>Place of publication or production</b>	Salisbury
<b>Other bibliographic Information – report number</b>	249900.04
<b>Report release delay</b>	July 2022
<b>Choose File</b>	

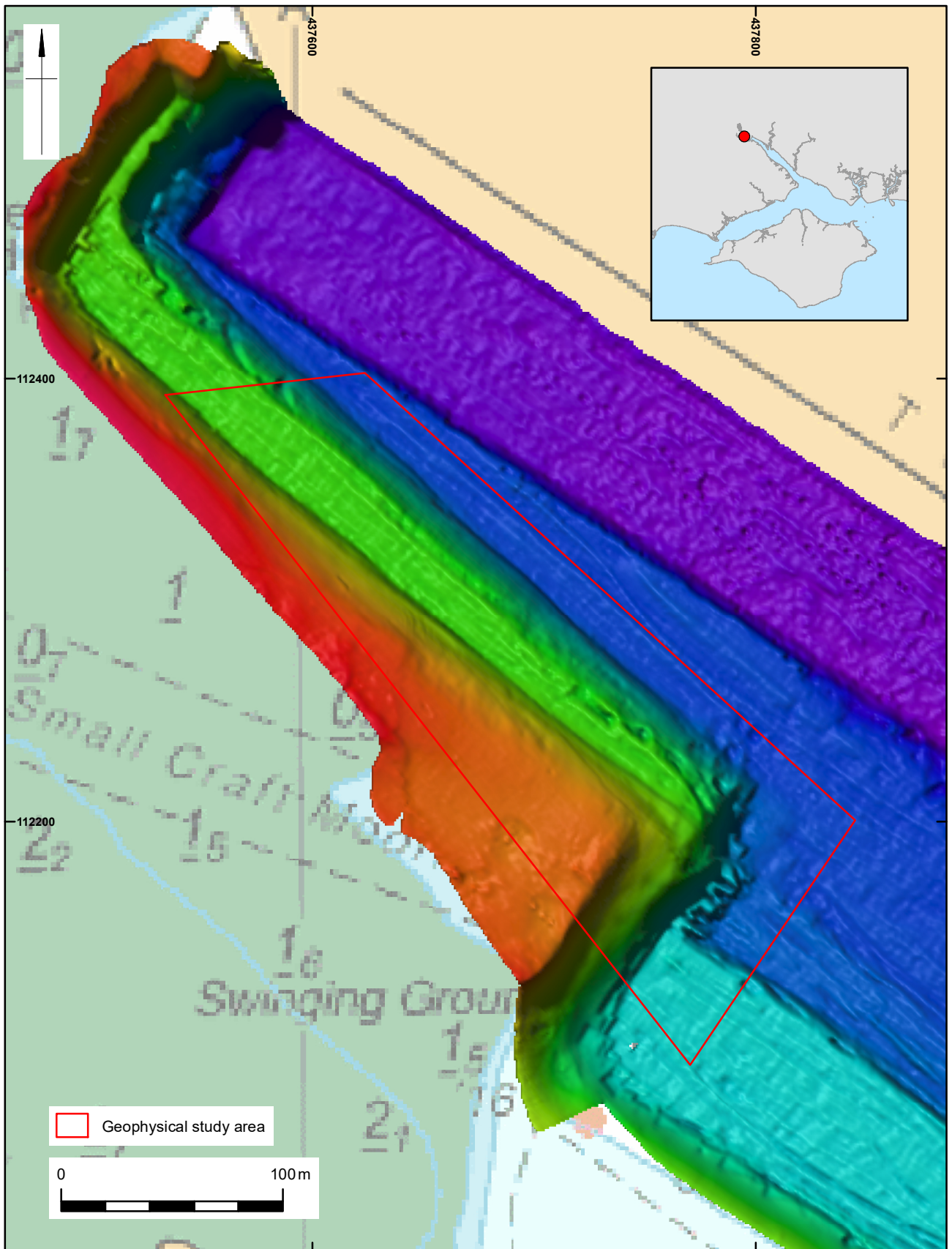
<b>People</b>	
<b>Organisation</b>	Wessex Archaeology
<b>Project Manager</b>	DEA
<b>Expert/Project Officer</b>	ABB
<b>Funder</b>	Associated British Ports.

<b>Keywords</b>	
<b>Significant monuments or artefacts</b>	None
<b>Keyword</b>	-
<b>Period</b>	-

<b>Results</b>	
<b>Description - outcomes</b>	No finds.
<b>Research framework sections</b>	-

<b>Archives</b>		
<b>Digital Archive</b>	Digital archive	
	<b>Title</b>	As Above
	<b>Location before deposition</b>	Wessex Archaeology, Salisbury
	<b>Expected deposition date</b>	July 2022
	<b>Accession ID</b>	

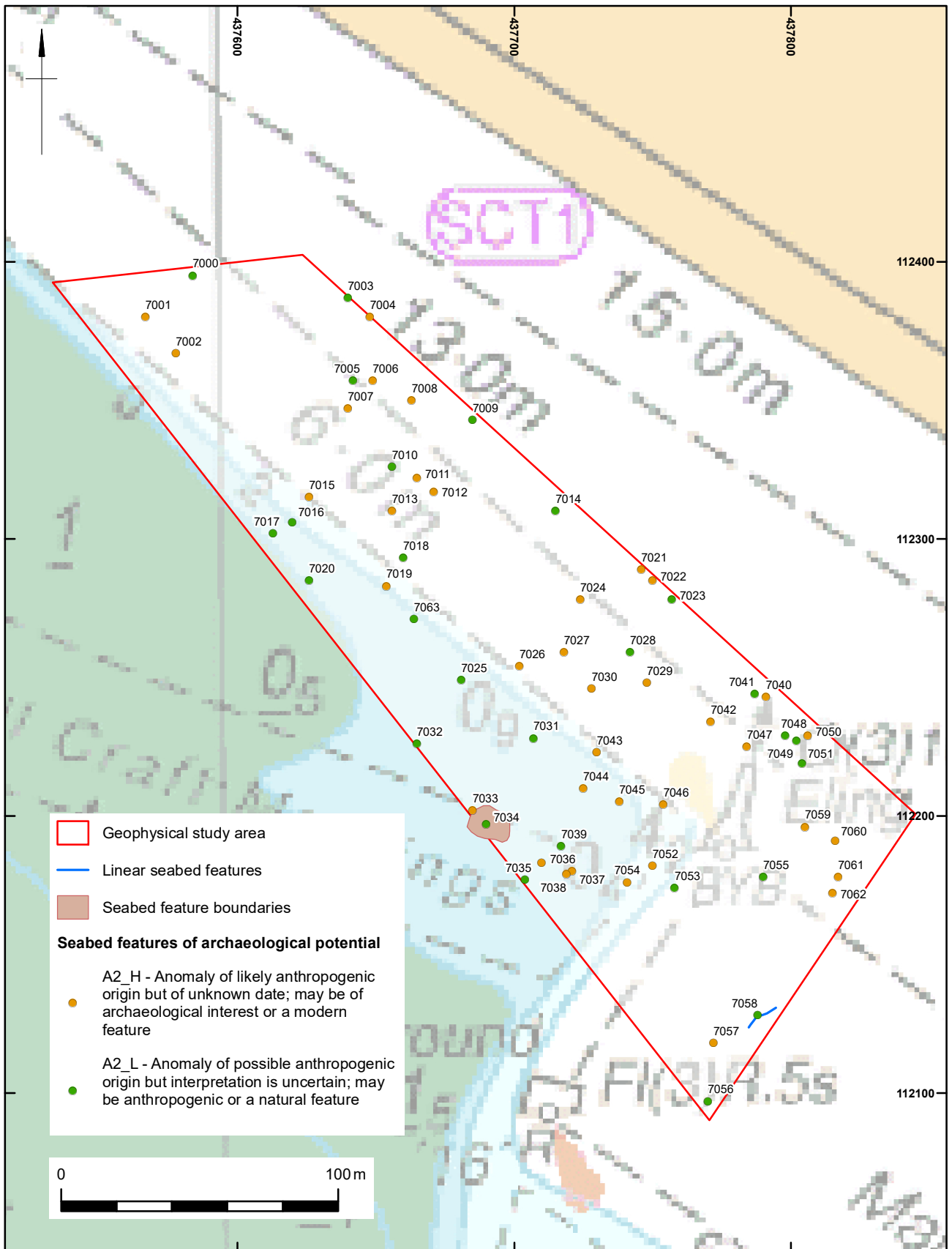
<b>Additional Information</b>	
<b>Project website</b>	N/A
<b>Large area scheme</b>	N/A
<b>Related OASIS projects</b>	N/A



Geophysical study area



Coordinate system: OSGB36 BNG			
Charts from MarineFIND.co.uk. © Crown Copyright 2022. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2022. This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
Date:	31/03/2022	Revision Number:	0
Scale:	1:2,500 at A4	Illustrator:	KJF
Path:	W:\Projects\249900\GIS\Figs\MXD\WB\2022_03_31		




Geophysical study area  
 Linear seabed features  
 Seabed feature boundaries

**Seabed features of archaeological potential**

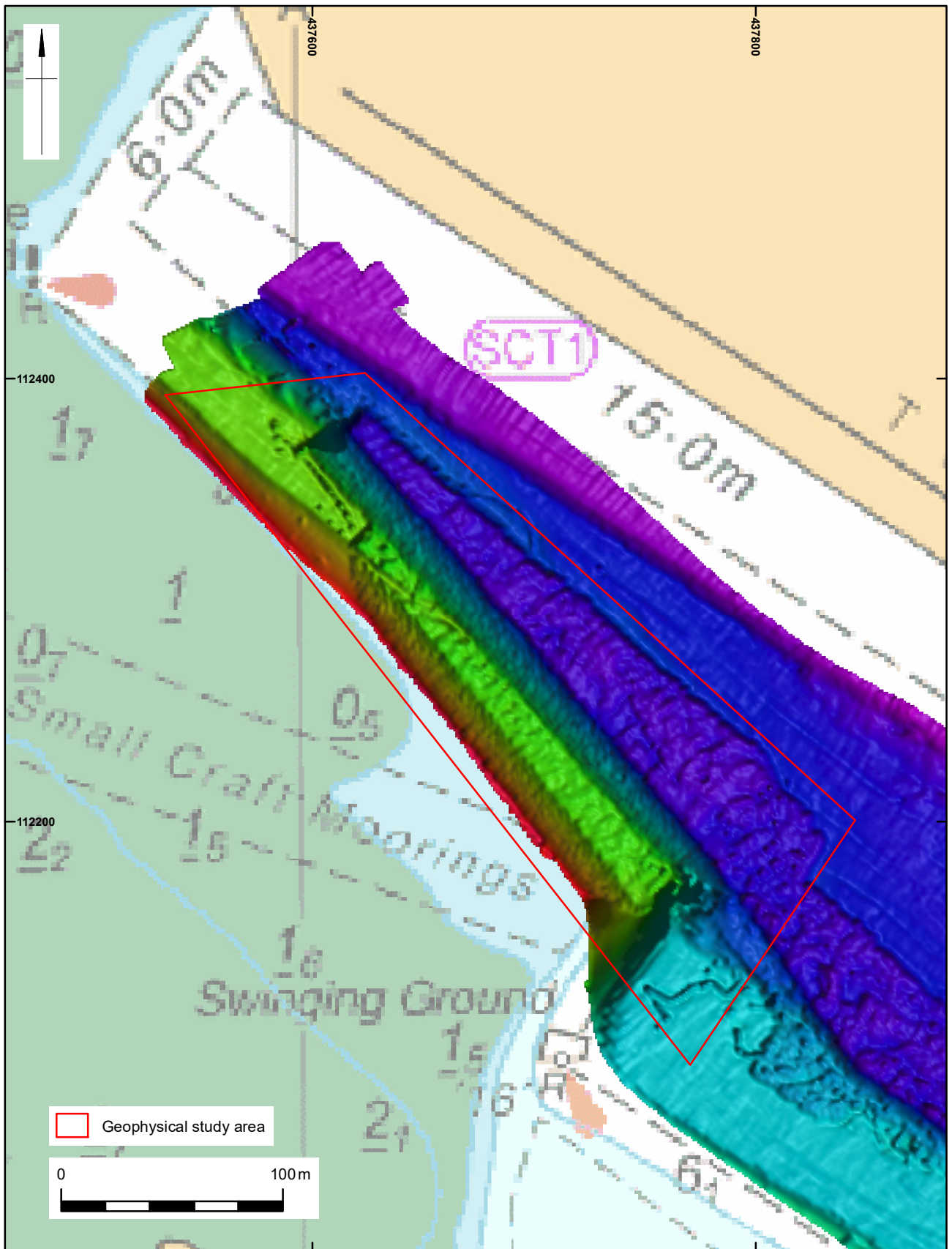
● A2\_H - Anomaly of likely anthropogenic origin but of unknown date; may be of archaeological interest or a modern feature  
● A2\_L - Anomaly of possible anthropogenic origin but interpretation is uncertain; may be anthropogenic or a natural feature



	Coordinate system: OSGB36 BNG			
	Charts from MarineFIND.co.uk. © Crown Copyright 2022. All rights reserved. Licence No. EK001-0582-MF0050. This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	01/04/2022	Revision Number:	0
	Scale:	1:2,000 at A4	Illustrator:	KJF
Path:		W:\Projects\249900\GIS\Figs\MXD\WB\2022_03_31		

Seabed features of archaeological potential

Figure 2





	Coordinate system: OSGB36 BNG		
	Charts from MarineFIND.co.uk. © Crown Copyright 2022. All rights reserved. Licence No. EK001-0582-MF0050.		
	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.		
	Date:	31/03/2022	Revision Number:
Scale:	1:2,500 at A4	Illustrator:	KJF
Path:	W:\Projects\249900\GIS\FigsMXD\WB\2022_03_31		



Figure 4: Working shot of loaded hopper barge



Figure 5: Working shot of the Dredger *Odin* crane

	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	01/04/2022	Revision Number:	0
	Scale:	Not to scale	Illustrator:	KJF
	Path:	W:\Projects\249900\Graphics_Office\Rep figs\WB\2022_03_31		



Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB  
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk



FS 606559