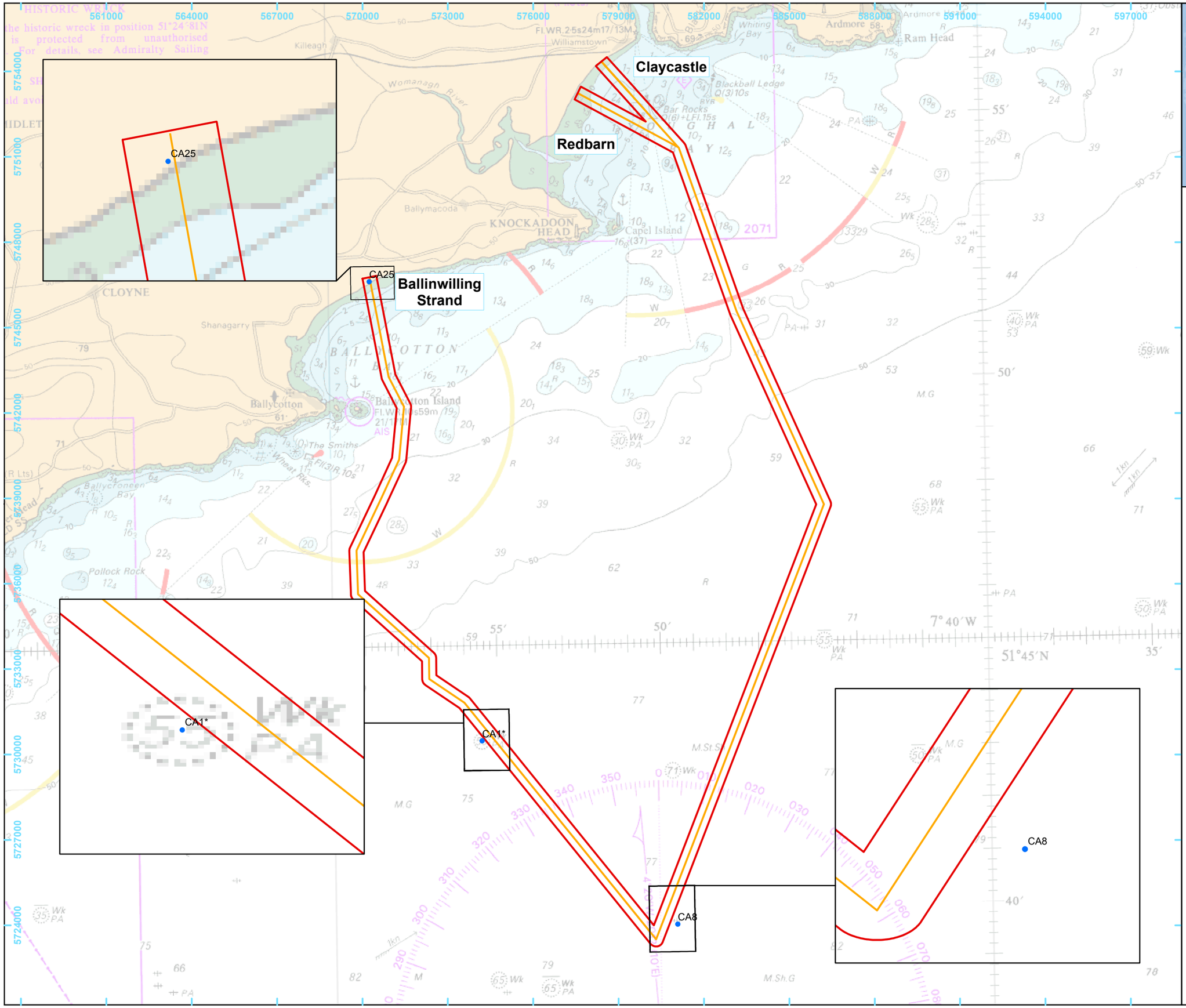

Legend

- Wrecks and obstructions
- 500m wide CSC
- Cable Route

N

0 5km

Coordinate System: WGS 1984 UTM Zone 29N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -9.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

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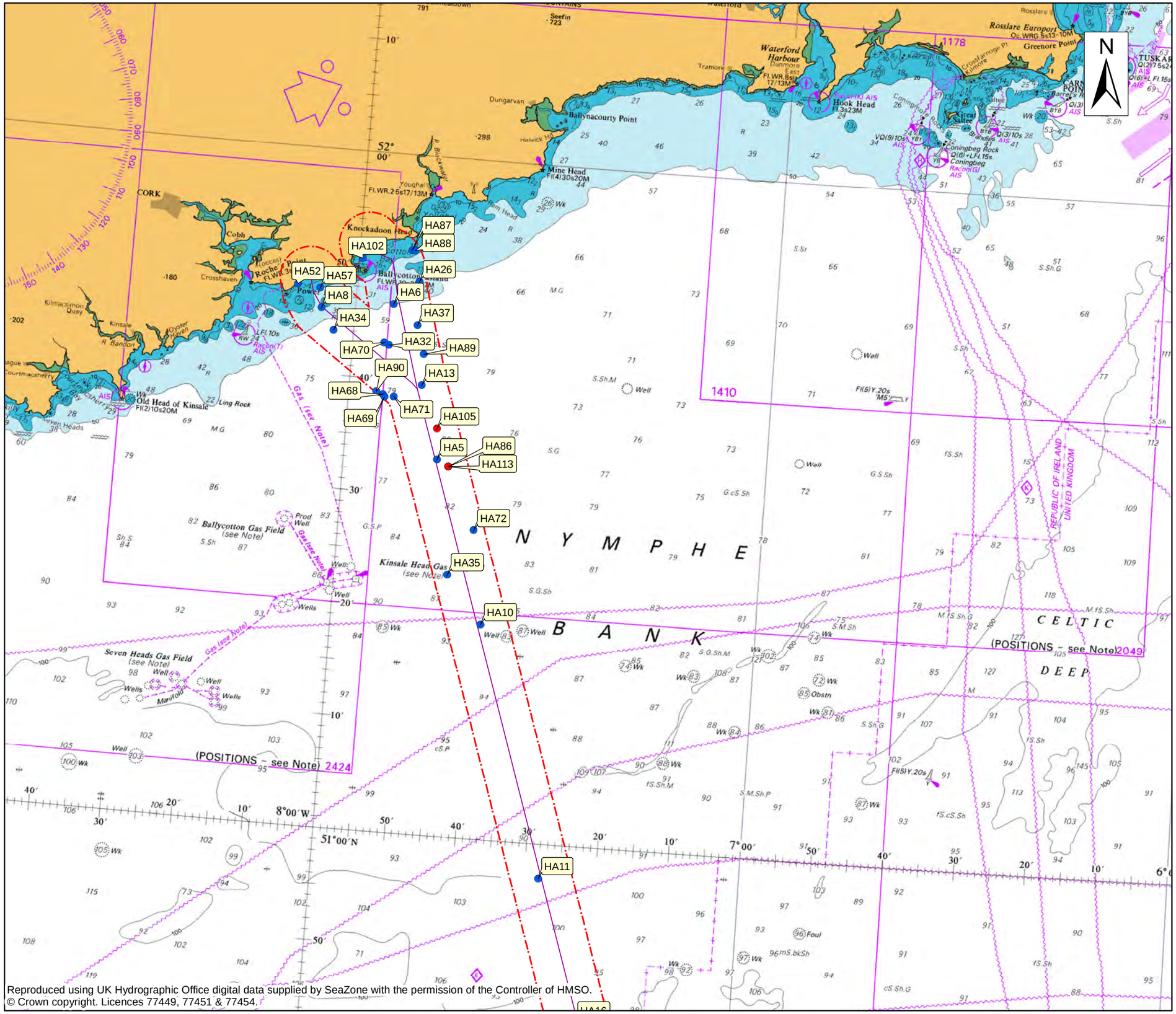
PROJECT TITLE
Celtic Interconnector

FIGURE TITLE
Wrecks, obstructions and findspots within or in proximity to the CSC in Irish territorial waters

DRAWN BY	RLF	*PROJECT NO*	770617	*FIGURE NO.*
CHECKED BY	MTW	*DATE*	16/05/2019	7
APPROVED BY	MTW	*SCALE@A3*	1:125,000	



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HEADLAND ARCHAEOLOGY

Key

- Obstrn
- Wreck
- Marine Survey Route
- 5km Search Area

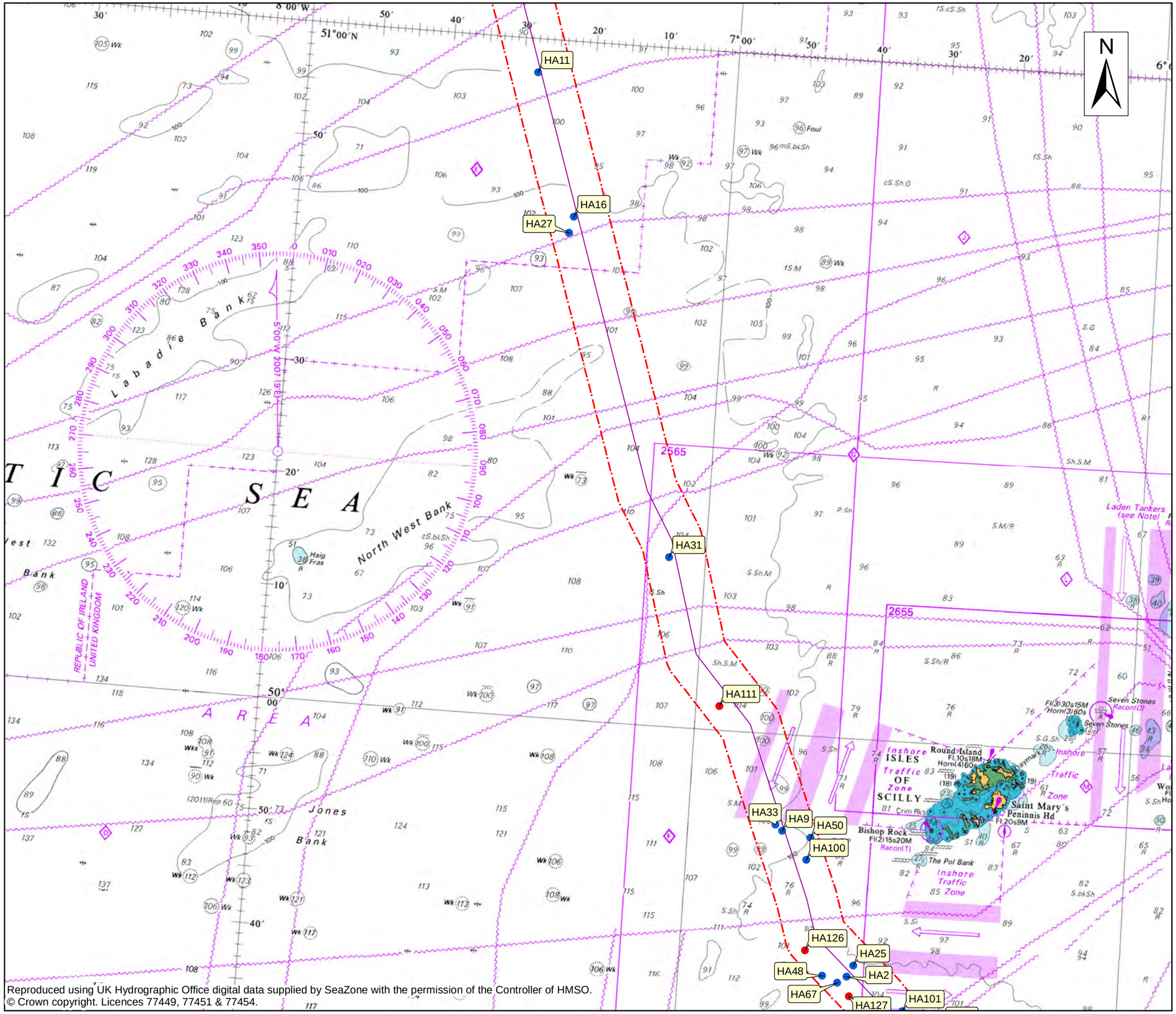
Kilometers
0 20
1:625,000

Ireland-France Celtic Interconnector [EIFI13]

DRAFT

EIFI13

Figure 8 Original map of wrecks and obstructions within the CSC and WSA in Irish waters, provided by Headland Archaeology (2015). No alterations have been made regarding revised routes and redundant sites.



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HEADLAND ARCHAEOLOGY

Key

- Obstrn
- Wreck
- Marine Survey Route
- 5km Search Area

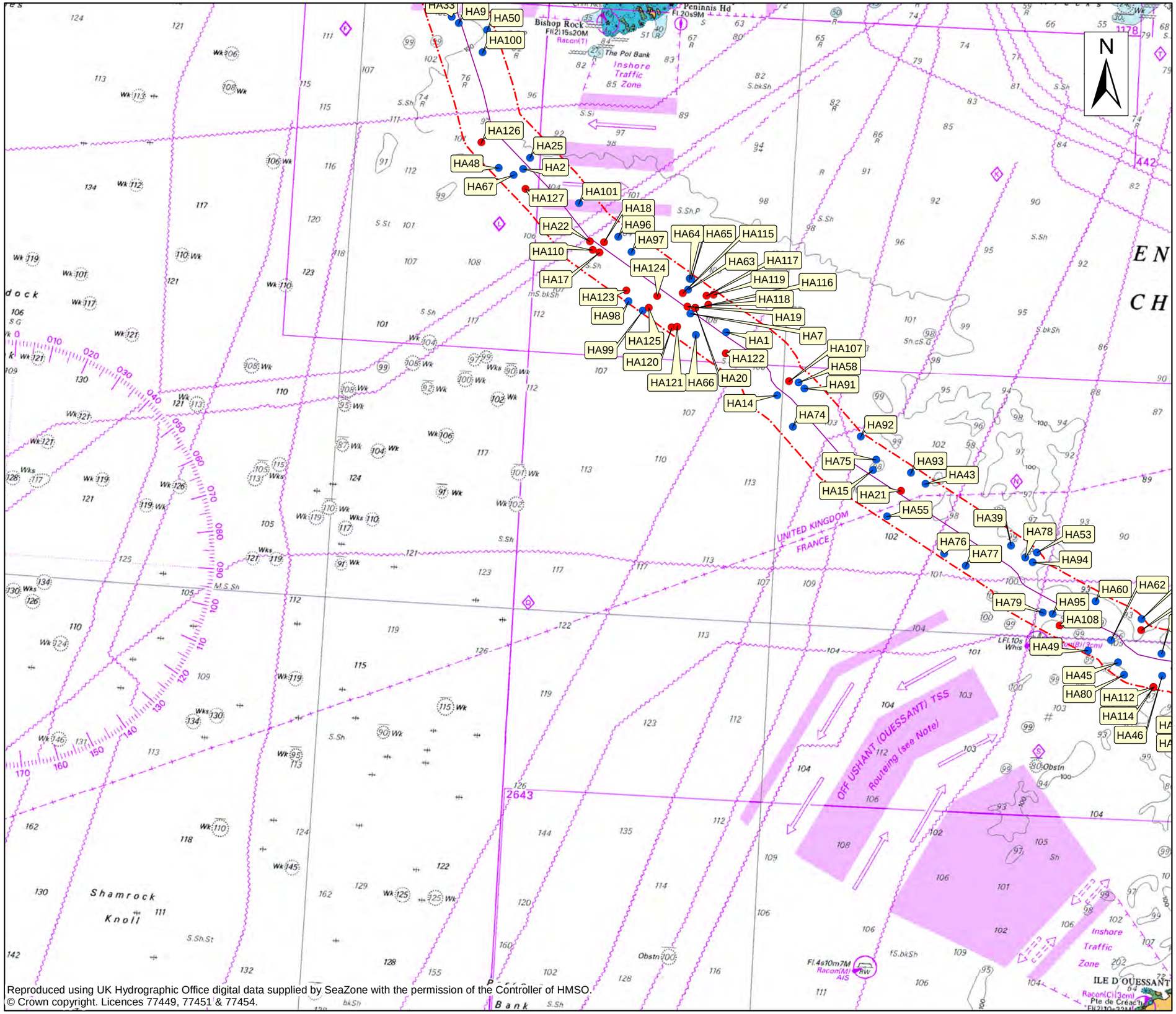
Kilometers
0 20
1:625,000

Ireland-France Celtic Interconnector [EIFI13]

DRAFT

EIFI13

Figure 9 Original map of wrecks and obstructions within the CSC and WSA from Irish / UK median line to French waters, provided by Headland Archaeology (2015). No alterations have been made regarding revised routes and redundant sites.



HEADLAND ARCHAEOLOGY

Key

- Obstrn
- Wreck
- Marine Survey Route
- 5km Search Area

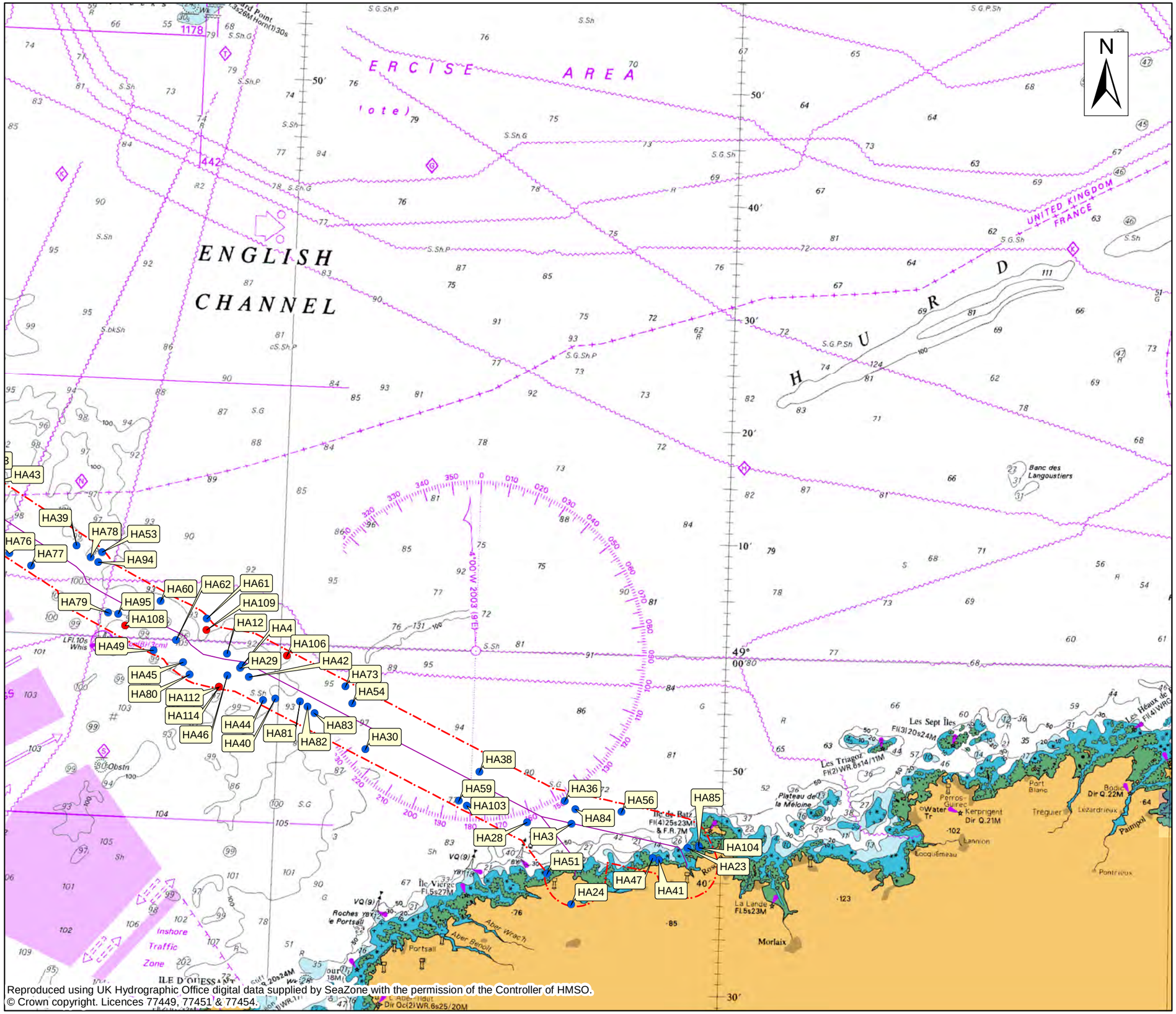
Kilometers
0 20
1:625,000

Ireland-France Celtic Interconnector [EIFI13]

DRAFT

EIFI13

Figure 10 Original map of wrecks and obstructions within the CSC and WSA in French waters, provided by Headland Archaeology (2015). No alterations have been made regarding revised routes and redundant sites.



HEADLAND ARCHAEOLOGY

Key

- Obstrn
- Wreck
- Marine Survey Route
- 5km Search Area

Kilometers

0 20

1:625,000

Ireland-France Celtic Interconnector [EIFI13]

DRAFT

EIFI13

Figure 11 Original map of wrecks and obstructions within the CSC and WSA in French territorial waters, provided by Headland Archaeology (2015). No alterations have been made regarding revised routes and redundant sites.

Foreshore survey results

Walkover survey

Ballinwilling Strand

4.40. A series of features relating to sea defences (Table 5) were identified during the walkover survey conducted by Headland Archaeology (2015: 5).

Table 5 Features identified at Ballinwilling Strand in 2015 walkover survey by Headland Archaeology

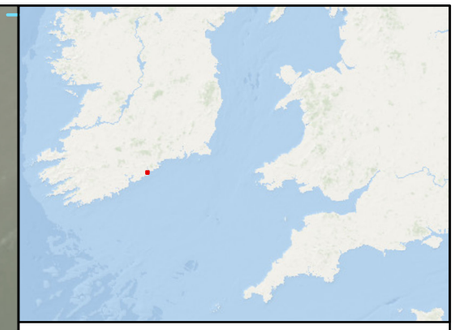
ID	Latitude	Longitude	Material	Description
101	51,51.982	-7,58.690	Concrete	Cut water, 0.40m wide, 4m visible extending from beach, aligned SE-NW, constructed from concrete with iron reinforcing bars.
102	51,51.949 51.51.992	-7,58.829 -7,58.636	Wooden piles/ Stone	A series of wooden piles driven into the beach, running for approximately 180m, aligned with the cliff edge and forming a retaining barrier for a deposit of large white rounded stones. The piles have worn down and some of the stones have spread down the beach.
103	51,51.560 51,51.580	-7,58.510 -7,58.460	Concrete	Concrete and stone access slipway aligned with the cliff edge. The structure provides access to the beach via a long ramp; the lower quarter has been recently damaged. The external sea face has been reinforced with wooden facing.

Claycastle beach

4.41. A series of exposed peat deposits (**CA3008-CA3011**) were observed in the inter-tidal zone in the south-west of the survey area (Table 6 and Figs 12 & 13). These peat deposits included evidence of plant remains (tree roots; **CA3002-CA3005**), as well as evidence of excavation in the form of recti-linear cuts (**CA3007**), possibly for use as *fulachtai fia*.

4.42. An eroded and heavily encrusted circular object, possibly a pot (**CA3001**) lying half exposed in the intertidal zone (Fig. 13) was also recorded. It could, possibly, be the fossilised remains of a hollowed-out trunk but this seems less likely as the other wooden remains associated with the peat do not appear fossilised.

4.43. This section of beach also included the remains of eight dilapidated wooden groynes (**CA3012-CA3018**) that were relatively evenly spaced (c. 60m apart) in the inter-tidal zone (Fig. 14).



Legend

- Walkover survey points
- Metal detector survey points
- End of groyne
- Exposed peat
- Cable Route
- 500m wide CSC

N

0 0.075km

Coordinate System: WGS 1984 UTM Zone 29N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -9.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
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PROJECT TITLE
Celtic Interconnector

FIGURE TITLE
Walkover and metal detector findspots at Claycastle beach

DRAWN BY	**RLF**	*PROJECT NO*	**770617**	*FIGURE NO.*
CHECKED BY	**MTW**	*DATE*	**20/05/2019**	**12**
APPROVED BY	**MTW**	*SCALE@A3*	**1:1,750**	

Table 6 Walkover survey results from Claycastle beach

CA ID	Latitude	Longitude	Material	Description
CA 3001	51.933011	-7.858793	Metal	Circular pot
CA 3002	51.932628	-7.860034	Wood	Tree stump in peat
CA 3003	51.932638	-7.859962	Wood	Tree trunk in peat
CA 3004	51.932626	-7.859938	Wood	Tree roots in peat
CA 3005	51.932729	-7.859835	Wood	Tree stump in peat
CA 3006	51.932791	-7.85976	Wood	Upstanding timbers in peat
CA 3007	51.9328	-7.85967	-	Rectangular cut in peat
CA 3008	51.931989	-7.860591	Peat	Exposed peat (c. 168 sq. m)
CA 3009	51.932187	-7.860424	Peat	Exposed peat (c. 85 sq. m)
CA 3010	51.932359	-7.860423	Peat	Exposed peat (c. 711 sq. m)
CA 3011	51.932881	-7.859492	Peat	Exposed peat (c. 1.06 sq. km)
CA 3012	51.934405 51.934581	-7.856025 -7.856265	Wood	Beach groynes
CA 3013	51.934104 51.934357	-7.856747 -7.857098	Wood	Beach groynes
CA 3014	51.933738 51.934079	-7.857387 -7.857782	Wood	Beach groynes
CA 3015	51.933384 51.933631	-7.858092 -7.858386	Wood	Beach groynes
CA 3016	51.933054 51.933166	-7.858796 -7.859009	Wood	Beach groynes
CA 3017	51.932647 51.932871	-7.859427 -7.859692	Wood	Beach groynes
CA 3018	51.93234 51.932558	-7.859944 -7.860314	Wood	Beach groynes

CA ID	Latitude	Longitude	Material	Description
CA 3019	51.932077 51.932258	-7.860412 -7.860725	Wood	Beach groynes

Figure 13 Walkover findspot examples - *left* recti-linear cut in peat (CA3007- facing north-east); *top right* - possible pot (CA3001 – facing north); *bottom right* – wood protruding from exposed peat.

Figure 14 Remains of a groyne on Claycastle beach (facing south-east). Note the exposed peat deposits in the foreground.

Redbarn beach

4.44. Two features were identified during the walkover survey (Table 7). These were relatively close to the level of MHWS and appear to be the remains of earlier sea defences (Fig. 15). The remains consist of a line of upstanding stones (**CA3042**), running E-W and standing up to 0.4m high.

4.45. The barrier restricting beach access is modern and will not be considered further. A large area of rounded stones was also observed and noted as unusual for this area of the beach.

Table 7 Walkover survey results from Redbarn beach

CA ID	Latitude	Longitude	Material	Description
CA 3042	51.925578	-7.870442	Stone	Linear stone barrier on an east-west alignment, parallel to the shore. Approx. 210m in length
Beach barrier	51.924620	-7.871691	Wood/metal	A series of wooden posts, with a metal barrier, used to restrict vehicular access to the beach. Approx. 24m in length

Figure 15 Possible beach defences (CA 3042) along the shoreline (facing north-west)

Metal detector survey results

Ballinwilling Strand

The metal detector survey at Ballinwilling Strand detected a total of 51 find spots (Fig. 16 & Appendix 1). The locations of the detected finds suggest random rather than deliberate deposition indicative of casual losses in the inter-tidal zone. None of the findspots were associated with the prehistoric find spot recorded by the NMS (NMI acc. No. 1972: 354; **CA25**; Cotswold Archaeology 2017).

Claycastle beach

4.46. 22 metal anomalies were detected during the metal detector survey at Claycastle beach (see Fig. 12 above & Appendix 1). These were located primarily in the north-east corner of the survey area, close to the high-water mark with a scattering of anomalies spread to the south and west. These were predominantly low detector value anomalies, probably indicating ferrous material.

Redbarn beach

4.47. A total of 81 metal anomalies were detected at Redbarn beach (Fig. 17 & Appendix 1). A significant number of these were concentrated along a stretch of beach 300m long and 60m wide in the centre of the inter-tidal zone. Other anomalies were found to the west, closer to high water and surrounding the beach defences, with a few scattered eastwards towards the sea.

Geophysical survey results

Ballinwilling Strand

4.48. The geophysical survey at Ballinwilling strand (Figures 18–23) indicated that the survey area consisted of a spread of bedrock at a shallower depth. From the visible outcrop in the southeast corner of the survey area it appears that these rocks have a more graduated incline than those observed on the other beach. However, the deeper responses from the 3m and 4m coil separation imply that the extent of the bedrock is equally well defined, shelving steeply beneath the sand to the south.

4.49. There is a break in the bedrock that could represent some form of earlier channel. However, in this case there is not a clearly defined causal mechanism for the break in the bedrock. The channel also shows more clearly on the electromagnetic data (in-phase). This might imply that the break is a deliberate cut, perhaps for an outfall

pipe, at this location. If so, the pipe does not appear to be metal or it has been removed subsequently.

4.50. There are no clearly interpretable metallic responses as were observed elsewhere.

Claycastle beach

4.51. The dataset from Claycastle beach shows variation throughout the in-phase survey but a more homogenous background has been detected across most of the quadrature survey. This is thought to show near-surface variation in the depth and composition of the upper beach deposits and a more homogenous, conductive underlying deposit. The area of exposed peat in the south-west of the Claycastle survey area has not been detected as an isolated anomaly but is associated with a more extensive area of increased magnetic susceptibly, perhaps suggesting that the peat deposits extend beneath the beach sand. See Figure 24 and 25.

4.52. An amorphous area of negative magnetic susceptibility in the east of the survey area corresponds with an area of lower electrical conductivity in the quadrature dataset. This anomaly is caused by variation in the depth and composition of the estuarine silts and clays.

4.53. Very low in-phase and quadrature readings are recorded at the head of Claycastle beach. This is caused by the contrast between the conductive and magnetically susceptible beach deposits and those at the dune/vegetation line. No clearly interpretable metallic responses have been identified at Claycastle beach.

Redbarn beach

4.54. The survey at Redbarn beach shows variation throughout both the in-phase (magnetic susceptibility) and the quadrature (conductivity) datasets. The broad amorphous anomaly in the centre of the survey area corresponds with a slight channel in the covering sand where sea water pools temporarily as the tide retreats. This anomaly exhibits a negative magnetic susceptibility and a lower electrical conductivity than the surrounding beach material and is caused by variation in the depth and composition of the marine deposits (see Figures 26 & 27).

4.55. In the southernmost corner of the in-phase dataset the magnetic susceptibility values increase significantly although there is no variation in the quadrature data. The cause of this anomaly is not clear although it may locate the extent of the

outfall of alluvial deposits from the river Blackwater, as suggested by recent satellite imagery (Ordnance Survey Ireland 2018).

4.56. As at Claycastle beach, very low in-phase and quadrature readings are recorded at the head of Redbarn beach. This is caused by the contrast between the conductive and magnetically susceptible beach deposits and those at the dune/vegetation line.

4.57. No clearly interpretable geophysical metallic responses have been identified at Redbarn beach.

Summary

Claycastle beach

4.58. The exposed peat deposits identified at Claycastle beach are of high archaeological potential. Previous investigations of a core taken at Claycastle (Delahunty 2002) radiocarbon dated the deepest peat deposit from the core to *c.* 4,555 years BP. The lowest peat deposits therefore date from the Early Neolithic and are of archaeological significance (Delahunty 2002). The results of the geophysical survey appear to suggest that the exposed peat probably represents a much larger deposit that extends beneath the sand both landward and seaward. This was investigated further with a limited hand auger survey (see below).

4.59. There appears to be little apparent patterning or correlation between the anomalies detected during the metal detector survey on Claycastle beach. These seem to represent casual losses rather than being indicative of coherent archaeological sites or features and are therefore of low archaeological potential.

4.60. The series of dilapidated wooden groynes recorded in the intertidal zone appear to be relatively modern, early 20th century, coastal defences and are therefore considered to be of low archaeological potential.

Redbarn beach

4.61. The metal detector survey at Redbarn beach appears to have detected a significant number of seemingly related anomalies, as well as a number of random, probably casual, losses. The former appears to correlate with a possible sub-surface depression identified in the geophysical survey. These occur in a relatively regular formation of three lines on a north-east to south-west alignment covering an area c. 275m by 60m. This suggests a possible site of medium archaeological potential.

The upstanding remains of possible beach defences are considered of low archaeological potential.

Ballinwilling Strand

4.62. There was little apparent patterning or correlation between the 51 anomalies detected during the metal detector survey and none appear to be associated with the prehistoric flint blade associated with the *fulacht fiadh* (**CA25**). The remains of the sea defences, concrete breakwaters and groynes along the edge of Ballinwilling Strand are all of low archaeological potential.