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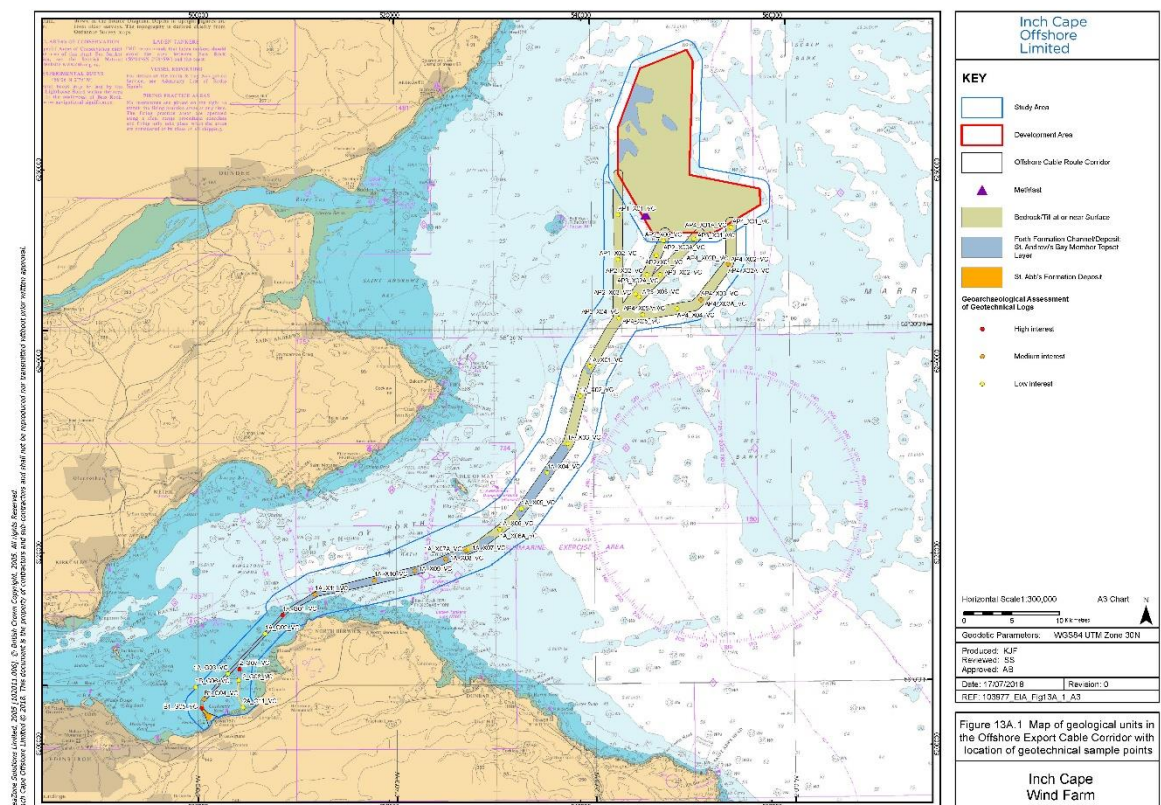
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13A Geoarchaeological assessment of Offshore Export Cable Corridor geotechnical logs

13A.1 Introduction

- 1 This appendix contains the geoarchaeological assessment for the Offshore Export Cable Corridor of the Inch Cape Offshore Wind Farm. The assessment looked at 37 core logs from vibrocores taken during a 2012/2013 coring campaign, and sought to identify the archaeological potential of the sediments within the cores. It found that the vast majority of the cable corridor was covered with Forth Group sediments on limited archaeological potential, but that some cores suggested more potential close to the southern shore of the Firth of Forth.

Figure 13A.1: Geological units in the Offshore Export Cable Corridor with location of geotechnical sample points



Offshore Export Cable Corridor Baseline

- 2 Based on the results of the review of geotechnical logs within the Offshore Export Cable Corridor, boreholes have been assigned a high, medium and low priority status, with a series of recommendations made for further targeted geoarchaeological work (itemised in the below table and shown in Figure 13A.1), involving geoarchaeological recording of sediment.
- 3 There is currently potential for seabed prehistory receptors within the Offshore Export Cable Corridor as shown in the review of the geotechnical logs obtained in 2012/2013 (Table 13A.1). Three logs (1A_G01_VC; 2_G07_VC; B1_G05_VC) contain organic material of

potential prehistoric deposits (Figure 13A.1). Regionally, there is nearshore potential in eastern and south-eastern Scotland for inundated coastal palaeo-landscapes of possible archaeological and palaeoenvironmental interest (Bicket *et al.* 2015 (such as palaeochannels and coastal geomorphological features that may contain early prehistoric archaeological material)).

Table 13A.1: Geoarchaeological review of the 2012/2013 geotechnical data for the Offshore Export Cable Corridor

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
1A_G01_VC	-	6	508857	6213478.7	Silty sand with shell (5.52 m)	Yes, photograph indicates organics with depth, likely not in situ	High
2_G07_VC	-		504338.5	6207808.2	Silty gravelly sand (1.0 m) clayey sand (1.60 m) silty sand (3.56 m) gravelly sand (4.50 m) gravelly sand with organic pockets (5.42 m)	Yes, detrital organic material visible in core photographs	High
B1_G05_VC	-	4.4	500401	6203735.3	Organic silt with rootlets (0.25 m) soft clay (0.95 m) silty sand (2.55 m) firm clay (2.65 m) silty gravelly sand (2.90 m) firm laminated clay (4.40 m)	Yes, organic and laminated silt possibly early Holocene	High

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
1A_X07A_VC	42.5	3	528028.7	6220205.2	Silt (1.25 m) soft laminated clay (2.80 m)	Possibly, unknown silt deposit	Medium
1A_X08_VC	39.5	3	525910.9	6219325.7	Silt (0.50 m) soft laminated clay (2.60 m)	Possibly, unknown silt deposit	Medium
1A_X09_VC	40.8	3	522651.2	6218119.1	Silt (1.0 m) soft laminated clay (2.76 m)	Possibly, unknown silt deposit	Medium
1A_X10_VC	42.7	3	518428	6217133.3	Silt (0.60 m) soft laminated clay (2.44 m)	Possibly, unknown silt deposit	Medium
1A_X11_VC	25.3	3	512234.2	6215639.6	Silt (0.18 m) soft laminated clay (2.10 m)	Possibly, unknown silt deposit	Medium
AP4_X02A_VC	51.4	3	555394.3	6250124.2	Silty gravelly sand (organic traces) (0.32 m) soft laminated clay (0.52 m) silty sand (0.77 m) soft clay (0.87 m)	Possibly, may have organics near top	Medium
AP4_X03_VC	55.8	0.6	552559.3	6246413.1	Silty gravelly sand (organic traces)	Possibly, organics near seabed	Medium

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
					(0.47 m)		
AP4_X03 A_VC	55.8	3	552552.5	6246397.3	Silty gravelly sand (organic traces) (1.37 m) soft gravelly clay (1.77 m)	Possibly, organics near seabed	Medium
B1_G04_VC	-	3.19	500636	6204678.9	Organic clay with rootlets (0.20 m) laminated silt (1.40 m) gravelly sand (2.30 m) laminated clay (2.50 m) clayey organic sand (3.19 m)	Possibly, organic clay and laminated silt possibly early Holocene	Medium
1A_X06A_VC	39.8	3			Silty gravelly sand (1.00 m) soft laminated clay (2.14 m)	No, SBS and FH	Low
1A_X07_VC	41.5	3			Sandy gravel (0.63 m)	No, SBS and FH	Low
1B_G06_VC	-	4.7			Organic clay (0.20 m) soft laminated clay (2.35 m) laminated silt (3.30 m) silty gravelly	No, photograph shows core is disturbed near top	Low

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
					sand (4.70 m)		
2_G08_VC	-	3.99			Silty gravelly sand with organic pockets and rootlets (0.16 m) clayey sand (2.00 m) silty sand (3.47 m) gravelly sand (3.99 m)	No, no visible organics	Low
2A_G11_VC	-	3.36			Sand with shell (0.10 m) soft clay (2.55 m) soft gravelly clay (3.00 m) gravelly sand (3.36 m)	No, SBS and FH	Low
AP1_X01_VC	52.1	3			Silty sand (0.26 m) soft gravelly clay (2.14 m)	No, SBS and FH	Low
AP1_X02_VC	49	3			Silty gravelly sand (0.23 m) soft gravelly clay (2.00 m)	No, SBS and FH	Low
AP2_X00_VC	50.7	0.65			Sandy gravel (0.18 m) soft gravelly clay (0.65 m)	No, SBS and FH	Low

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
					m)		
AP2_X00 A_VC	50.7	0.76			Soft gravelly clay (0.50 m)	No, SBS	Low
AP2_X01 _VC	50.3	0.5			Silty sand (0.50 m)	No, SBS	Low
AP2_X02 _VC	46	1			Clayey gravelly sand (0.25 m)	No, SBS	Low
AP2_X03 _VC	55.3	3			Silty sand (0.38 m) soft gravelly clay (2.70 m)	No, SBS and FH	Low
AP3_X01 _VC	53.3	3			Silty sand (1.05 m) soft laminated clay (2.80 m)	No, SBS and FH	Low
AP3_X02 _VC	52.6	1.66			Silty gravelly sand (0.20 m) soft gravelly clay (1.22 m)	No, SBS and FH	Low
AP3_X02 A_VC	52.6	0.82			Silty gravelly sand (0.27 m) soft gravelly clay (0.82 m)	No, SBS and FH	Low
AP3_X03 _VC	55.8	3			Silty gravelly sand (0.30 m) soft clay (2.10 m)	No, SBS and FH	Low

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
					soft gravelly clay (2.35 m) soft clay (2.84 m)		
AP3_X04_VC	54.2	3			Silty gravelly sand (0.63 m) soft gravelly clay (0.80 m) soft clay (1.90 m) soft gravelly clay (2.42 m)	No, SBS and FH	Low
AP4_X01_VC	60.8	3			Silty gravelly sand (1.38 m)	No, SBS	Low
AP4_X01_A_VC	60.8	3			Silty gravelly sand (1.70 m) soft clay (2.84 m)	No, SBS and FH	Low
AP4_X02_VC	51.4	3			Silty gravelly sand (0.40 m) gravelly sand (0.45 m) soft laminated clay (0.54 m) gravelly sand (0.78 m)	No, SBS and FH	Low
AP4_X02_B_VC	51.4	3			Silty gravelly sand (0.52 m) soft clay (1.45 m) laminated clay (1.60 m) silty sand (2.20 m) soft	No, SBS and FH	Low

Borehole	Seabed (m below LAT)	Penetration (m)	Easting (m)	Northings (m)	Description	Archaeological Potential? Preliminary Interpretation*	Priority
					gravelly clay (2.88 m)		
AP4_X04_VC	53.4	3			Silty gravelly sand (0.60 m) soft clay (2.07 m) soft to firm silt (2.50 m)	No, SBS and FH	Low
AP4_X05_VC	55.9	3			Silty gravelly sand (1.15 m) soft clay (1.96 m)	No, SBS and FH	Low
AP4_X05_A_VC	55.9	1.65			Silty gravelly sand (1.51 m)	No, SBS	Low

*Key to deposits: SBS – Seabed Sediments; FH – Forth Formation.