

Norfolk Vanguard Offshore Wind Farm

Appendix 8.1

Particle Size Characteristics

Environmental Statement

Volume 3

Applicant: Norfolk Vanguard Limited
Document Reference: 6.2.08.1
RHDHV Reference: PB4476-005-0081
Pursuant to: APFP Regulation 5(2)(a)

Date: June 2018
Revision: Version 1
Author: Royal HaskoningDHV

Photo: Kentish Flats Offshore Wind Farm



Environmental Impact Assessment Environmental Statement

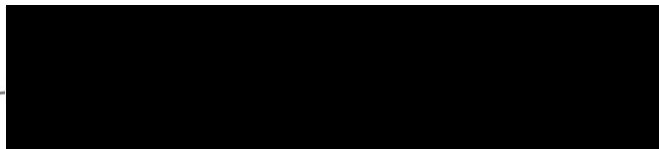
Document Reference: PB4476-005-0081

June 2018

For and on behalf of Norfolk Vanguard Ltd

Approved by: Ruari Lean, Rebecca Sherwood

Signed: —



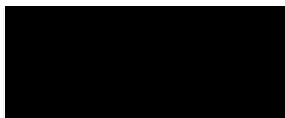
Date: 8th June 2018

For and on behalf of Royal HaskoningDHV

Drafted by: David Brew

Approved by: Alistair Davison

Signed:



Date: 17th October 2017



Date	Issue No.	Remarks / Reason for Issue	Author	Checked	Approved
20/06/17	01	First draft (in chapter)	DB	GK	AD
21/06/17	02	Second draft (in chapter)	DB	GK	AD
06/09/17	04	Third draft (in chapter)	DB	GK	AD
18/09/17	05	Fourth draft (in chapter)	DB	GK	AD
17/10/17	06	Final	DB	GK	AD

Tables

Table 8.1 Particle size characteristics of seabed sediment samples in NV West (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.9.....	1
Table 8.2 Particle size characteristics of seabed sediment samples in NV East (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.9.....	3
Table 8.3 Particle size characteristics of seabed sediment samples in the offshore cable corridor (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.10.....	5

8 APPENDIX 8.1 PARTICLE SIZE CHARACTERISTICS

Table 8.1 Particle size characteristics of seabed sediment samples in NV West (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.9

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
208B	2.1	95.8	2	0.29	MESL (2011)
211B	1.2	96.6	2.2	0.33	
212B	3.9	94.8	1.3	0.34	
215B	2.7	90.9	6.4	0.32	
216B	1.5	96.1	2.4	0.30	
217B	0.7	98.1	1.2	0.35	
218B	2.1	96.3	1.6	0.32	
221B	8.6	89.1	2.3	0.38	
222B	6.6	67.5	25.9	0.23	
223B	2	95.9	2	0.33	
224B	0.6	98.2	1.2	0.34	
227B	2	87.6	10.5	0.32	
228B	0.3	89.9	9.8	0.30	
229B	1.8	96.5	1.7	0.34	
230B	2.7	96.2	1.1	0.35	
234B	5.8	90.6	3.6	0.36	
235B	0.5	98.4	1.1	0.34	
236B	2.9	95.6	1.5	0.34	
237B	1.7	96.5	1.9	0.31	
242B	3.7	70.6	25.7	0.27	
243B	2.6	93.1	4.3	0.35	
244B	3.1	94	2.9	0.36	
251B	0.9	97.5	1.6	0.33	
252B	4.9	93.6	1.6	0.38	
253B	9.2	87.7	3.1	0.36	
260B	7.3	47.7	44.9	0.18	
261B	0.7	96.8	2.5	0.32	
262B	1.6	97	1.4	0.32	
269B	2.9	95.1	1.9	0.36	
270B	3	82	15	0.25	
785X	14.7	78.8	6.5	0.41	
786X	6	89.6	4.4	0.36	
787X	1.2	22	76.8	0.00	
01MS	4.3	87.8	8	0.35	Fugro (2017b)
02MS	3.8	68.6	27.6	0.23	

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
03MS	5.6	93.4	1	0.40	
04MS	2.6	97.4	0	0.45	
05MS	1.7	98.3	0	0.39	
06MS	4.1	95.9	0	0.37	
07MS	0.5	99.5	0	0.37	
08MS	3.6	96.4	0	0.38	
09MS	1.1	98.9	0	0.37	
10MS	0.7	99.3	0	0.35	
11MS	3.5	96.5	0	0.36	
12MS	2.5	87.2	10.3	0.33	
13MS	4.3	93.6	2.1	0.37	
14MS	1.1	98.9	0	0.38	
15MS	2.2	97.8	0	0.36	

Table 8.2 Particle size characteristics of seabed sediment samples in NV East (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.9

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
98A	0.16	96.8	3.03	0.19	MESL (2011)
99A	0.18	98.63	1.19	0.2	
103A	4.28	82.76	12.96	0.2	
104A	0.46	98.11	1.42	0.21	
105A	1.28	97.54	1.18	0.24	
109A	0.03	98.12	1.85	0.3	
110A	0.12	98.71	1.17	0.25	
111A	0.48	98.18	1.34	0.24	
112A	0.16	99.01	0.83	0.26	
113A	0.31	98.53	1.16	0.25	
115A	0.76	96.4	2.84	0.24	
116A	0.42	96.83	2.74	0.21	
117A	1.03	96.21	2.76	0.24	
118A	0.22	98.64	1.14	0.24	
119A	4.4	92.08	3.52	0.21	
121A	3.08	95.66	1.26	0.35	
122A	1.32	97.58	1.09	0.37	
123A	0.3	98.59	1.11	0.25	
124A	0.17	98.11	1.72	0.21	
125A	0.16	98.56	1.28	0.28	
126A	1.33	97.47	1.2	0.29	
128A	0.16	98.32	1.53	0.23	
129A	0.14	98.25	1.61	0.24	
130A	0.48	98.25	1.27	0.31	
131A	0.56	98.28	1.16	0.31	
132A	4.03	92.43	3.54	0.27	
134A	4.91	91.9	3.19	0.33	
135A	6.46	92.53	1.01	0.32	
136A	0.33	98.34	1.33	0.27	
137A	0.27	98.26	1.46	0.25	
138A	4.51	93.81	1.68	0.24	
139A	0.62	97.74	1.64	0.25	
140A	0.44	98.33	1.23	0.31	
141A	0.31	97.72	1.97	0.25	
142A	2.43	94.61	2.96	0.27	
143A	0.76	96.53	2.71	0.31	
144A	0.83	97.49	1.68	0.27	

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
145A	3.63	94.92	1.45	0.3	
146A	0.26	98.54	1.19	0.35	
147A	0.39	98.42	1.2	0.25	
148A	0.53	97.4	2.07	0.26	
809X	1.6	96.9	1.4	0.36	
810X	1.9	94.7	3.4	0.32	
811X	6.4	88.9	4	0.33	
16MS	0.3	99.7	0	0.34	Fugro (2017b)
17MS	0.7	94	5.3	0.31	
18MS	0.1	99.9	0	0.34	
19MS	7.5	68.8	23.7	0.26	
20MS	0.8	99.2	0	0.34	
21MS	0.1	99.9	0	0.32	
22MS	4.3	95.7	0	0.32	
23MS	1.4	98.6	0	0.32	

Table 8.3 Particle size characteristics of seabed sediment samples in the offshore cable corridor (MESL, 2011; Fugro, 2017b). Locations are shown in Figure 8.10

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
277B	7.6	90.6	1.8	0.36	MESL (2011)
286B	15.6	62.0	22.4	0.32	
287B	1.5	94.7	3.8	0.30	
288B	3.5	94.5	2.0	0.31	
290B	0.0	98.0	2.0	0.13	
293B	1.9	97.0	1.2	0.33	
294B	9.6	88.1	2.3	0.31	
297B	1.4	97.2	1.4	0.29	
298B	3.3	95.1	1.6	0.37	
299B	0.0	98.1	1.9	0.11	
300B	5.3	73.2	21.6	0.28	
788X	7.8	72.5	19.6	0.25	
789X	4.8	86.1	9.1	0.28	
797X	8.8	84.0	7.2	0.34	
25CR	9.5	87.9	2.6	0.25	Fugro (2017b)
27CR	61.1	38.1	0.9	6.44	
29CR	56.8	42.1	1.1	9.61	
30CR	63.1	30.7	6.2	7.43	
31CR	50.8	44.2	5	2.37	
32CR	86	12.9	1.1	24.56	
33CR	48	48.6	3.4	1.21	
35CR	0.7	99.3	0	0.39	
36CR	0.2	99.8	0	0.29	
37CR	0	100	0	0.36	
38CR	2.6	97.4	0	0.46	
39CR	0.1	99.9	0	0.53	
40CR	3.4	93.7	2.9	0.40	
41CR	0	100	0	0.47	
42CR	0	100	0	0.36	
43CR	35.7	63.4	0.9	0.98	
44CR	0	100	0	0.29	
45CR	5.3	94.7	0	0.32	
46CR	0.5	37.6	61.9	0.03	
48CR	29.7	51.1	19.2	0.42	
49CR	1.4	98.6	0	0.39	
50CR	16.6	62.4	21	0.30	
52CR	24.4	54.4	21.2	0.37	

Station	Gravel (%)	Sand (%)	Mud (%)	d ₅₀ (mm)	Reference
53CR	12.5	64.1	23.4	0.32	
54CR	13	85.8	1.2	0.41	
57CR	1	99	0	0.36	
58CR	2.1	37.7	60.2	0.03	
60CR	0.1	99.9	0	0.36	
61CR	1.9	67.7	30.3	0.22	
62CR	9	65.7	25.3	0.24	
64CR	8.5	84.9	6.6	0.35	
65CR	12.5	79.9	7.7	0.36	
66CR	5.4	94.6	0	0.35	