

Appendix 3

Sedimentological and fossil data from the Skagen Well.

Content in per cent of clay (< 0.002 mm), fine silt (> 0.002 mm – < 0.006 mm), medium silt (> 0.006 mm – < 0.02 mm), coarse silt (> 0.02 mm – < 0.063 mm), fine sand (> 0.063 mm – < 0.2 mm), medium sand (> 0.2 mm – < 0.6 mm), coarse sand (> 0.6 mm – < 2.0 mm), and gravel (> 2.0 mm).

Quartiles Q_1 (25%), Q_2 (50%), Q_3 (75%) and percentile P_{10} (10%), P_{40} (40%), P_{90} (90%).

$$\text{Mean grain size: } \frac{Q_1 + Q_2 + Q_3}{3}$$

$$\text{Sorting coefficient (So): } \sqrt{\frac{Q_1}{Q_3}}$$

$$\text{Skewness: } \sqrt{\frac{Q_1 \cdot Q_3}{Q_2 \cdot Q_2}}$$

$$\text{Kurtosis: } \frac{Q_1 - Q_3}{2(P_{10} - P_{90})}$$

$$\text{Uniformity coefficient: } \frac{P_{40}}{P_{90}}$$

Water per cent;

Loss on ignition (550°C)

Furthermore, the occurrences of pyrite, reworked shell, spatangoids, cirripeds, ophiuroids, concretions, fish, and other fossils. Finally N of species.

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Depth m. b.s.	Top	Base	Locality	Core	Lab.no.	Clay %	Fine Silt %	Medium Silt %	Coarse Silt %	Fine Sand %	Medium Sand %	Coarse Sand %	Gravel %	P ₁₀	Q ₁	P ₄₀	Q ₂	Q ₃	P ₉₀	Mean Grain Size	S ₀	Geom. skewness	Kurtosis	P ₄₀ /P ₁₀	Water (DS) %	Loss on ignition	Shell >0.5mm %	Mat >1.0mm (g)	Analysis			
66.0																																
66.2																																
66.4																																
66.6	66.7	66.7	Skagen 3	25																												
66.8																														0.015	W	
67.0	67.0	67.3	Skagen 3	25	720.93																					22.87	3.06	0.06		IM		
67.2	67.3	67.4	Skagen 3	25																										0.099	W	
67.4																																
67.6																																
67.8																																
68.0																																
68.2																																
68.4																																
68.6																																
68.8	68.8	68.9	Skagen 3	26	507.93	9.1	3.6	5.3	19.4	62.5	0.1	0	0	0.115	0.095	0.081	0.073	0.046	0.003	0.071	1.433	0.823	0.217	28.778		2.36	0.07		0.038	W		
-	68.9	69.0	Skagen 3	26																											HIM	
69.0																																
69.2																																
69.4																																
69.6																																
69.8																																
70.0	70.1	70.3	Skagen 3	27	721.93																						24.29	2.42	0.03		IM	
70.2	70.3	70.4	Skagen 3	27																										0.06	W	
70.4																																
70.6																																
70.8																																
71.0																																
71.2	71.3	71.3	Skagen 3	28																										0.032	W	
71.4																																
71.6																																
71.8	71.8	71.9	Skagen 3	28																											0.008	W
-	71.9	72.0	Skagen 3	28	508.93	9.7	4.4	6.3	27.1	52.4	0.1	0	0	0.103	0.083	0.072	0.065	0.033	0.002	0.060	1.593	0.645	0.249	33.527		2.9	0.05		HIM			
72.0																																
72.2																																
72.4																																
72.6																																
72.8	72.9	72.9	Skagen 3	29																										0.036	W	
73.0	73.1	73.3	Skagen 3	29	722.93																						22.21	2.63	0.09		IM	
73.2	73.4	73.4	Skagen 3	29																										0.096	W	
73.4																																
73.6																																
73.8																																
74.0																																
74.2																																
74.4																																
74.6																																
74.8	74.8	74.9	Skagen 3	30																										0.007	W	
-	74.9	75.0	Skagen 3	30	509.93	7.8	4.6	4.9	27.8	54.9	0.1	0	0	0.107	0.085	0.074	0.067	0.042	0.003	0.064	1.427	0.800	0.207	24.745		3.1	0.04		HIM			
75.0																																
75.2																																
75.4																																
75.6																																
75.8																																
76.0																																
76.2	76.3	76.3	Skagen 3	31																										0.019	W	
-	76.3	76.5	Skagen 3	31	723.93																						25.31	3.8	0.03		IM	
76.4																																
76.6																																
76.8																																
77.0																																
77.2																																
77.4																																
77.6																																
77.8	77.9	78.0	Skagen 3	32																										0.067	W	
-	77.9	78.0	Skagen 3	32	510.93	13.7	5	8.3	36.5	36.4	0.1	0	0	0.087	0.073	0.060	0.053	0.016		0.047	2.154	0.411				3.87	0.04		HIM			
78.0																																
78.2	78.3	78.4	Skagen 3	33																										0.017	W	
78.4																																
78.6																																
78.8	78.9	78.9	Skagen 3	32																										0.046	W	
79.0	79.0	79.2	Skagen 3	33	724.93																						25.04	3.6	0.01		IM	
79.2	79.2	79.3	Skagen 3	33																										0.041	W	
79.4																																
79.6																																
79.8																															0.027	W
80.0	80.0	80.0	Skagen 3	34																												
80.2																																
80.4																																
80.6	80.6	80.7	Skagen 3	34	511.93	15.2	5.9	10	38.5	30.4	0.1	0	0																			

Appendix 3: Sedimentological and fossil data from the Skagen Wells 3 and 4, page 14

Depth m. b.s.	Number of Species	Pyrite Reworked Shrimps Sparagodus Ostracods Fish Other Fossils Concretions	Polyplocophora Lacuna pallidula Hydrobia ulvae Barleeia unitacata Onoba vitrea Rissoia porifera Rissoia albella	- drilled specimens Turritella communis	- drilled specimens Bittium reticulatum Aporrhais bespelticani Lunatia montagui Lunatia alderi	- drilled specimens Buccinum undatum Collus sp	- drilled specimens Hinia pygmaea	- drilled specimens Hinia reticulata Oenopoda turricola Mavigella brachystoma Eptonium trevelyenium Adlis minor	- drilled specimens Hemiacis ventrosa	- drilled specimens Graphis alba Melanella alba Melanella lubrica Melanella tielei Polygretulima sinuosa Vireolina philippii	- drilled specimens Vireolina collersi Chrysalida decussata Brachystomia albella Odostomia conoidea Odostomia umbilicatis
66.2											
66.4											
66.6											
66.8											
67.0											
67.2											
67.4											
67.6											
67.8											
68.0											
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86.0											
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86.8											

Appendix 3: Sedimentological and fossil data from the Skagen Wells 3 and 4, page 16

Depth m. b.s.	- drilled specimens																																				
	Turtonia minuta	Cardidae	Acanthocardia echinata	Acanthocardia tuberculata	Laevicardium crassum	Parvicardium minimum	Macra stultorum	Spisula subtruncata	Phoridae	Phoxos pelliculus	Macoma sp	Macoma calcarea	Tellina fabula	Tellina pusilla	Tellina tenuis	Donax vittatus	Gani ferrens	Abra sp	Abra alba	Abra nitida	Abra prismatica	Abra tenuis	Arctica islandica	Kellia milaris	Chamelea striatula	Timoclea ovata	Mysia undata	Corbula gibba	Hiatalia arctica	Saxicavella jellfeyssi	Barnes candida	Pholas dactylus	Lyonia sp	Cochlidasma praetense	Tridacna phascolina		
66.0																																					
66.2																																					
66.4																																					
66.6																																					
66.8																																					
67.0			1			1												1																			
67.2			1			1																															
67.4																																					
67.6																																					
67.8																																					
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68.8																																					
69.0																																					
69.2																																					
69.4																																					
69.6																																					
69.8																																					
70.0			1																																		
70.2						1																															
70.4																																					
70.6																																					
70.8																																					
71.0																																					
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71.8																																					
-																																					
72.0								1																													
72.2																																					
72.4																																					
72.6																																					
72.8																																					
73.0																																					
73.2			1																																		
73.4																																					
73.6																																					
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74.0																																					
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76.4																																					
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76.8																																					
77.0																																					
77.2																																					
77.4																																					
77.6																																					
77.8			1																																		
-			1																																		
78.0																																					
78.2																																					
78.4																																					
78.6																																					
78.8																																					
79.0																																					
79.2																																					
79.4																																					
79.6																																					
79.8																																					

Appendix 3: Sedimentological and fossil data from the Skagen Wells 3 and 4, page 33

Depth m b.s.	Top	Base	Locality	Cone	Lab.no.	Clay %	Fine Silt %	Medium Silt %	Coarse Silt %	Fine Sand %	Medium Sand %	Coarse Sand %	Gravel %	P ₁₀	Q ₁	P ₄₀	Q ₂	Q ₃	P ₉₀	Mean Grain Size	So	Geom. skewness	Kurtosis	P ₄₀ /P ₁₀	Water (DS) %	Loss on ignition	Shell >0.5mm %	Mat >1.0mm (g)	Analysis		
170.6																															
170.8																															
171.0																															
171.2																															
171.4																															
171.6																															
171.8																															
172.0	172.2	172.3	Skagen 3	92	780.93	42	9.9	7.2	8.9	18.8	4.2	5.9	3.2	0.444	0.081	0.029	0.005								6.25	2.78	3.52		HIM		
172.2																															
172.4																															
172.6																															
172.8																															
173.0																															
173.2																															
173.4																															
173.6	173.7	173.9	Skagen 3	94	781.93																							1.864	W		
-	173.7	173.9	Skagen 3	94	781.93	50	13.9	7	28.1	0.6	0.3	0	0.1	0.056	0.038	0.004	0.002								5.48	3.79	6.2		HIM		
173.8																															
174.0																															
174.2																															
174.4	174.5																														
174.6																															
174.8																															
175.0																															
175.2	175.3		Skagen 3	95																								1.503	W		
175.3	175.5		Skagen 3	95	794.93	51.4	20.2	15.2	8.3	4.9	0	0	0	0.035	0.007	0.003	0.002								7.67	3.65	0.56		HIM		
175.4																															
175.6																															
175.8																															
176.0	176.1		Skagen 3	96																									0.28	W	
176.2																															
176.4																															
176.6																															
176.8	176.8	177.0	Skagen 3	96	782.93	41.3	10.2	5.5	19.9	21	1.7	0.4	0	0.084	0.060	0.030	0.005								11	3.54	0.11		HIM		
177.0																															
177.2	177.3																														
177.4																															
177.6	177.8																														
177.8	177.8	178.0	Skagen 3	97	795.93	49.2	16.8	12.7	12.5	7.2	1.5	0.3	0	0.059	0.013	0.004	0.002								3.02	3.07	4.58		HIM		
178.0																															
178.2																															
178.4																															
178.6																															
178.8																															
179.0																															
179.2																															
179.4	179.4		Skagen 3	98		16.1	45.7	16.5	15.1	6.7	0	0	0	0.053	0.014	0.005	0.004	0.002		0.007	2.433	1.948			9.46	5.57	0.73		HIM		
-	179.5	179.6	Skagen 3	98	796.93	16.1	45.7	16.5	15.1	6.7	0	0	0	0.053	0.014	0.005	0.004	0.002		0.007	2.433	1.948			9.46	5.57	0.73		HIM		
179.6	179.6		Skagen 3	98		6	20.3	18.7	46	6.2	2.6	0.2	0	0.062	0.047	0.035	0.026	0.006	0.003	0.026	2.824	0.402	0.346	10.758	9.32	6.76	13.79		HIM		
179.7	179.7	179.7	Skagen 3	98	483.93	6	20.3	18.7	46	6.2	2.6	0.2	0	0.062	0.047	0.035	0.026	0.006	0.003	0.026	2.824	0.402	0.346	10.758	9.32	6.76	13.79		HIM		
179.8	179.9		Skagen 3	98																											
-	180.0	180.0	Skagen 3	98																									0.393	W	
180.0	180.2																												0.393	W	
180.2	180.3	180.3	Skagen 3	99																									0.08	W	
180.4	180.4		Skagen 3	99		28.1	33.1	22.1	15	1.8	0	0	0	0.032	0.012	0.006	0.004	0.002		0.006	2.571	1.573			3.82	6.25	1.76		HIM		
-	180.6	180.7	Skagen 3	99	797.93	28.1	33.1	22.1	15	1.8	0	0	0	0.032	0.012	0.006	0.004	0.002		0.006	2.571	1.573			3.82	6.25	1.76		HIM		
180.6	180.7		Skagen 3	99																											
-	180.8	180.9	Skagen 3	99	798.93																										
180.8	180.9	180.9	Skagen 3	99																											
-	181.0	181.0	Skagen 3	99																									0.404	W	
181.0	181.0		Skagen 3	99																									0.404	W	
-	181.1		Skagen 3	99																									0.12	W	
-	181.1	181.2	Skagen 3	99																									0.12	W	
-	181.2	181.2	Skagen 3	99																									0.12	W	
181.2	181.3	181.3	Skagen 3	99																									1.943	W	
-	181.4		Skagen 3	99																									1.943	W	
181.4																															
181.6	181.7		Skagen 3	100																											
-	181.7	181.9	Skagen 3	100	940175																						7.68	0.04			IM
181.8	181.9																										7.68	0.04			IM
182.0																															
182.2																															
182.4	182.5																														
182.6	182.6		Skagen 3	100		43.2	27.7	18.7	10.4	0	0	0	0	0.021	0.007	0.004	0.002									21.61	7.57	0.94		HIM	
182.6	182.6	182.8	Skagen 3	100	784.93	43.2	27.7	18.7	10.4	0	0	0	0																		

