

Cruise report
Sand eel survey 2018

F/S Lonny Hedvig
and
M/S Reykjanes

North Sea/Skagerrak – Sand eel area 1r, 2r & 3r
Including the extended area

Cruise: 1/2018

Vessel: Lonny Hedvig

Area: Nordsøen, sand eel area 1r & 2r

Departure: Esbjerg **Date:** 20.11.2018

Arrival: Esbjerg **Date:** ca. 7.12.2018

Vessel: M/S Reykjanes

Area: Nordsøen, sand eel area 1r & 3r

Departure: Esbjerg **Date:** 20.11.2018

Arrival: Esbjerg **Date:** 7.12.2018

Project number: 39064 - 18

Participants (scientific)

Lonny Hedvig:

Cruise leader: Dirk Cornelis Tijssen Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 20/11 – 6/12 2018

Consultant: Thorvald Boersmose FOGA Aps, Esbjerg 20/11 – 6/12 2018

Reykjanes:

Cruise leader: Flemming Thaarup Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 20/11 – 6/12 2018

Assistant: Jan Thomsen Danmarks Tekniske Universitet, Institut for Monitoring og Data (DTU Aqua) 20/11 – x/11 2018

Objectives

The purpose of the sand eel dredge survey is to collect sand eels buried in the seabed and compare catches (number and age composition) with the previous year's collections to assess the 2018 year class strength of sand eel in area 1r, 2r and 3r of the different areas adopted by ICES in 2016 (figure 1). Data from the dredge survey is the basis for calculating an index, which is used in the stock assessment for sand eel in the North Sea.

Achievements

Types of data collected

- Dredge (sand eels; species, weight, length)
- Van Veen grab (sediment samples; grain size composition)

Lonny Hedvig:

- 17 days at sea
- 180 dredge hauls distributed over 60 sample positions.

Reykjanes:

- 18 days at sea
- 178 stations, 40 sediment grab samples and; 138 dredge hauls distributed over 46 sample positions.

Sampling method and strategy

Due to the extension of the survey area compared to 2016, two vessels participated in the survey: Lonny Hedvig and Reykjanes. Reykjanes worked on sand eel area 3r and the northern part of eel area 2r (i.e. the North Sea and the major part of Skagerrak). Lonny Hedvig carried out the remaining stations (i.e. the central and southern part of the North Sea).

Number of samples per position

- At all positions, where samples are taken, three stations are carried out in a "star" formation using the dredge. Furthermore, one sediment sample is taken using Van Veen sampler (0.2m²).

Time of the day for sampling

Sampling using the dredge is carried out during night time (i.e. 15 min after sunset to 15 min before sunrise). There is no time restriction on sediment samples.

Working up of samples on board

For more detailed description of the working-up procedure, see the cruise program.

Catch from dredge

The catch of the sand eel species is sorted (Lesser sand eel (*Ammodytes marinus* and *Ammodytes tobianus*) are pooled). The weight and the length distribution of the lesser sand eel are recorded. Sub-samples are frozen for split into the two species and age reading later in the laboratory. Each drag is worked up separately.

Sediment samples (Van Veen grab)

The content of the sediment samples are later on analyzed for grain size distribution in the lab.

Results

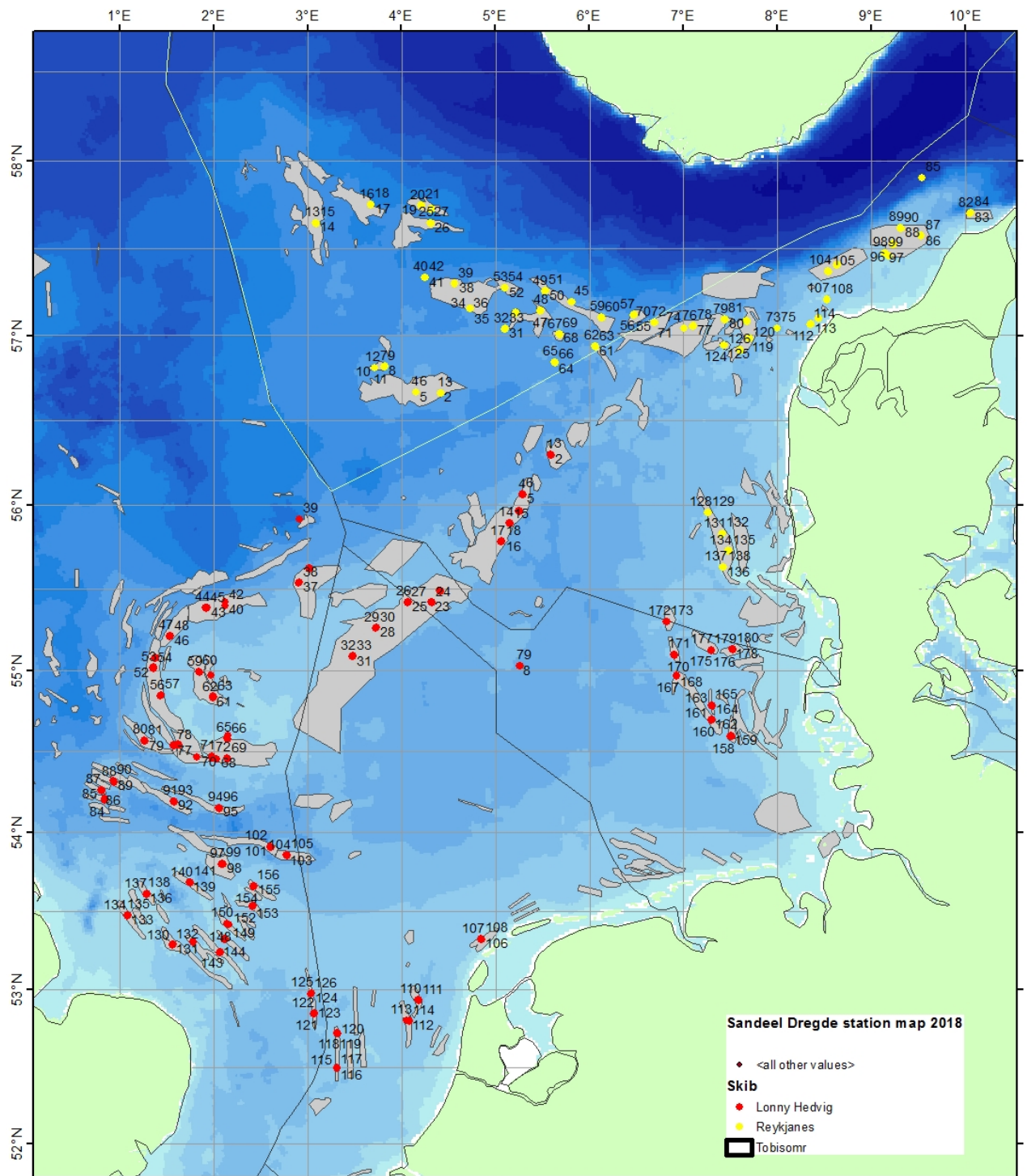
In total where 318 stations fished using the dredges distributed on 106 positions. Furthermore, 40 sediment samples where obtained.

	Lonny Hedvig	Reykjanes		Grand Total
	1r	2r	3r	
Sediment samples			40	40

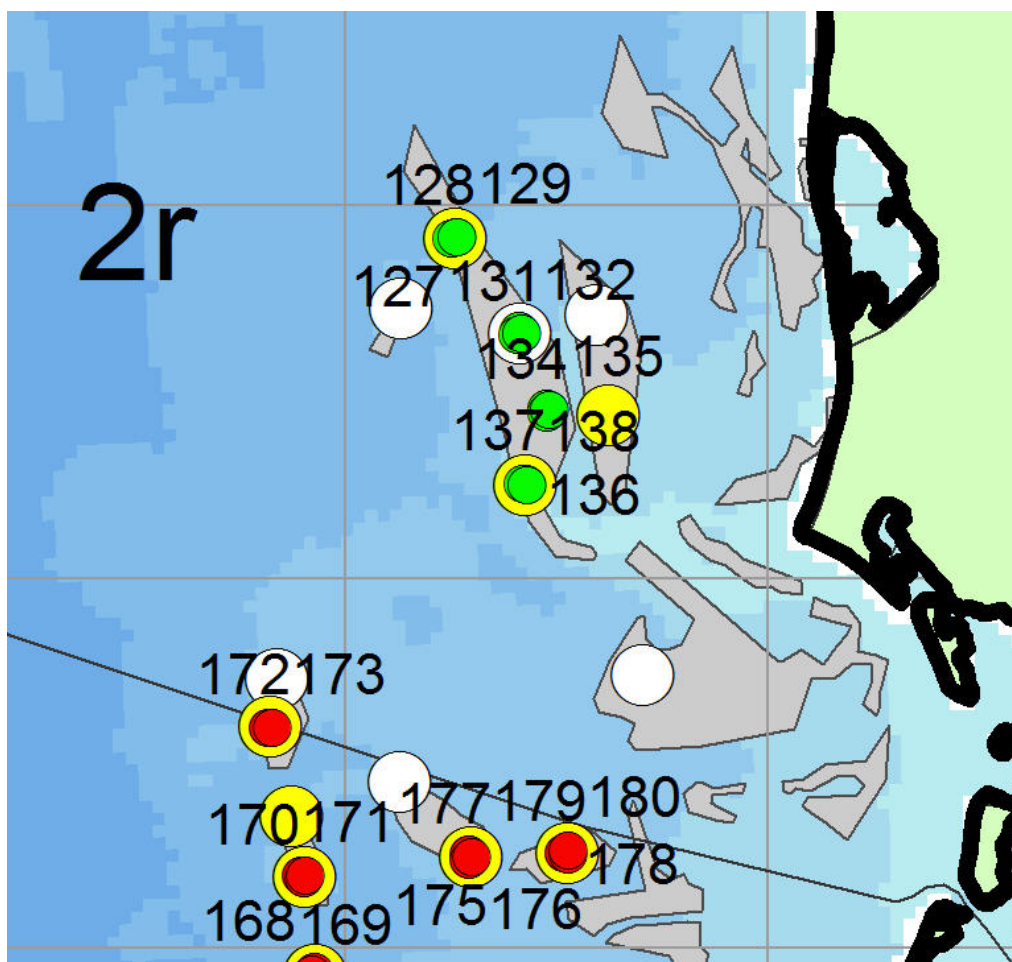
Dredge samples	180	12	126	318
Total	180	12	166	358

Compare of achieved number of hauls to planned number of hauls

In total 128 positions were listed to be sampled. Each position is suppose to be fished three times (star formation). If all stations were fished, this should result in a total of 384 dredge stations. Of the total positions, 93 positions have high priority and 35 have low priority. In 2018 a total of 106 positions were sampled resulting in 318 dredge stations. All high priority positions were fished except one position at Tails End, which were could not be fished due to the existence of a newly established windmill park (fig 2). Furthermore, one position south west of the same windmill park could not be fished either. 15 positions of low priority were fished.



Figur 1. Realized stations in sand eel area 1r, 2r and 3r for the November/December cruise 2018 (Lonny Hedvig and Reykjanes).



Figur 2. Situation of new windmill park, which prevents the fishing of a high priority position along the Judland west coast (Tail end).

Tabel 1. List of realized dredge stations during the sand eel survey in area 1r, 2r and 3r in November/December 2018.

Skib	dato	Banke	To bis om råde	reds kab	position	stati on	start	slut	lat start	lon start	vand dybd e	bemærknin g
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-16	1	04:29	04:39	56.17.802N	005.34.994Ø	39	15 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-16	2	04:51	05:01	56.17.700N	005.35.392Ø	36	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-16	3	05:11	05:21	56.18.021N	005.35.178Ø	39	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-02 (32)	4	16:20	16:30	56.03.697N	005.16.732Ø	39	15 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-02 (32)	5	16:41	16:51	56.03.597N	005.17.445Ø	37	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4165-02 (32)	6	17:00	17:10	56.03.931N	005.17.166Ø	38	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	7	17:29	17:39	55.01.918	005.15.727	36	15 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	8	17:50	18:00	55.01.709	005.15.213	36	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	9	18:08	18:18	55.01.597	005.15.639	36	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-03	10	20:01	20:11	55.58.022	005.15.371	42	13 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-03	11	20:20	20:30	55.58.087	005.14.466	43	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-03	12	20:39	20:49	55.57.704	005.14.904	43	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-02	13	21:31	21:41	55.53.639	005.09.172	35	13 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-02	14	21:51	22:01	55.53.460	005.08.534	33	
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-02	15	22:10	22:20	55.53.272	005.09.048		
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	16	23:11	23:21	55.47.107	005.04.006	32	11 m/sec
Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	17	23:30	23:40	55.46.895	005.03.483	32	

Lonny Hedvig	21-11-2018	Tails End	1r	DK4	4065-01	18	23:49	23:59	55.46.740	005.04.047	32	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.03 (27)	19	16:15	16:25	55.28.799	004.24.470	28	10 m/sec
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.03 (27)	20	16:34	16:44	55.29.035	004.24.927	28	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.03 (27)	21	16:57	17:07	55.29.183	004.24.349	28	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.02	22	17:35	17:45	55.25.118	004.19.255	31	11 m/sec
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.02	23	17:54	18:04	55.25.000	004.18.685	30	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.02	24	18:12	18:22	55.24.769	004.19.159	32	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.01 (25)	25	19:31	19:41	55.25.077	004.04.328	26	11 m/sec
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.01 (25)	26	19:49	19:59	55.25.249	004.03.648	25	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3964.01 (25)	27	20:08	20:18	55.24.908	004.03.849	26	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3963.04 (24)	28	21:51	22:01	55.15.931	003.43.767	30	6 m/sec
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3963.04 (24)	29	22:08	22:18	55.15.640	003.43.136	30	
Lonny Hedvig	22-11-2018	Elbow Split	1r	DK4	3963.04 (24)	30	22:27	22:37	55.15.605	003.43.580	31	
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	3963.01 (23)	31	00:00	00:10	55.05.373	003.28.753	28	
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	3963.01 (23)	32	00:18	00:28	55.05.232	003.28.127	28	
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	3963.01 (23)	33	00:35	00:45	55.05.062	003.28.632	29	
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	4063.01 (104)	34	16:17	16:27	55.37.278	003.00.599	41	5 m/sec
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	4063.01 (104)	35	16:34	16:44	55.37.137	003.01.170	40	
Lonny Hedvig	23-11-2018	Elbow Split	1r	DK4	4063.01 (104)	36	16:51	17:01	55.37.467	003.01.133	40	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	4062.01 (105)	37	17:43	17:53	55.32.187	002.54.832	40	5 m/sec
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	4062.01 (105)	38	18:01	18:11	55.32.043	002.54.257	40	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	4062.01 (105)	39	18:19	18:29	55.54.809	002.54.712	39	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3962.01 (106)	40	21:26	21:36	55.25.072	002.07.384	39	1 m/sec
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3962.01 (106)	41	21:45	21:55	5,524,037	002.06.777	39	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3962.01 (106)	42	22:02	22:12	55.23.829	002.07.233	39	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3961.44	43	22:56	23:06	55.23.022	001.55.529	41	1 m/sec
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3961.44	44	23:13	23:23	55.23.133	001.54.725	42	
Lonny Hedvig	23-11-2018	Middel Rough & Sorrel	1r	DK4	3961.44	45	23:30	23:40	55.22.758	001.54.997	41	
Lonny Hedvig	24-11-2018	Middel Rough & Sorrel	1r	DK4	3961.42	46	01:17	01:27	55.12.851	001.32.242	33	1 m/sec
Lonny Hedvig	24-11-2018	Middel Rough & Sorrel	1r	DK4	3961.42	47	01:35	01:45	55.12.728	001.31.536	35	
Lonny Hedvig	24-11-2018	Middel Rough & Sorrel	1r	DK4	3961.42	48	01:52	02:02	55.12.478	001.31.979	34	
Lonny Hedvig	24-11-2018	NW Rough & Rute 18	1r	DK4	3961.28 (17)	49	16:15	16:25	55.04.340	001.22.525	28	Ø 6 m/sec
Lonny Hedvig	24-11-2018	NW Rough & Rute 19	1r	DK4	3961.28 (17)	50	16:41	16:51	55.04.406	001.22.235	33	
Lonny Hedvig	24-11-2018	NW Rough & Rute 20	1r	DK4	3961.28 (17)	51	17:00	17:10	55.04.742	001.22.821	32	
Lonny Hedvig	24-11-2018	NW Rough & Rute 21	1r	DK4	3961.29 (18)	52	17:43	17:53	55.01.266	001.21.269	30	Ø 8 m/sec
Lonny Hedvig	24-11-2018	NW Rough & Rute 22	1r	DK4	3961.29 (18)	53	18:00	18:10	55.00.975	001.20.651	28	
Lonny Hedvig	24-11-2018	NW Rough & Rute 23	1r	DK4	3961.29 (18)	54	18:17	18:27	55.00.875	001.21.324	30	
Lonny Hedvig	24-11-2018	NW Rough & Rute 24	1r	DK4	3861.14 (12)	55	19:37	19:47	5,451,217	001.25.165	22	
Lonny Hedvig	24-11-2018	NW Rough & Rute 25	1r	DK4	3861.14 (12)	56	19:54	20:04	54.50.792	001.25.689	22	
Lonny Hedvig	24-11-2018	NW Rough & Rute 26	1r	DK4	3861.14 (12)	57	20:11	20:21	54.50.967	001.26.399	22	
Lonny Hedvig	24-11-2018	NW Rough & Rute 27	1r	DK4	3861.32 (16)	58	22:06	22:16	54.58.182	001.58.346	23	Ø 8 m/sec
Lonny Hedvig	24-11-2018	NW Rough & Rute 28	1r	DK4	3861.32 (16)	59	22:24	22:34	54.59.259	001.51.152	22	
Lonny Hedvig	24-11-2018	NW Rough & Rute 29	1r	DK4	3861.32 (16)	60	22:41	22:51	54.59.517	001.50.564	23	

Lonny Hedvig	25-11-2018	NW Rough & Rute 30	1r	DK4	3861.17 (9)	61	00:00	00:10	54.50.592	001.59.481	29	
Lonny Hedvig	25-11-2018	NW Rough & Rute 31	1r	DK4	3861.17 (9)	62	00:17	00:27	54.50.135	001.59.519	29	
Lonny Hedvig	25-11-2018	NW Rough & Rute 32	1r	DK4	3861.17 (9)	63	00:33	00:43	54.50.423	002.00.078	29	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3862.01 (8)	64	16:25	16:35	54.35.966	002.09.111	16	NØ 10 m/sec
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3862.01 (8)	65	16:42	16:52	54.34.869	002.08.348	16	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3862.01 (8)	66	17:00	17:10	54.34.620	002.08.982	16	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3762.01 (6)	67	17:59	18:09	54.27.716	002.08.431	14	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3762.01 (6)	68	18:16	18:26	54.27.258	002.02.039	15	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3762.01 (6)	69	18:33	18:43	54.27.354	002.08.775	15	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3761.04	70	19:56	20:06	54.27.957	001.49.419	16	NØ 10 m/sec
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3761.04	71	20:13	20:23	54.28.267	001.58.877	16	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3761.04	72	20:29	20:39	54.27.792	001.58.909	16	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861 (22)	73	22:05	22:15	54.32.651	001.37.796	17	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861 (22)	74	22:21	09:31	54.32.946	001.37.182	17	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861 (22)	75	22:38	22:48	54.32.542	001.37.099	26_16	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861.23 (14)	76	23:14	23:24	54.32.403	001.34.721	25-21	NØ 6 m/sec
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861.23 (14)	77	23:31	23:41	54.32.419	001.33.863	21	
Lonny Hedvig	25-11-2018	SW Path & SW Rough	1r	DK4	3861.23 (14)	78	23:48	23:58	54.32.072	001.34.350	21	
Lonny Hedvig	26-11-2018	SW Path & SW Rough	1r	DK4	3861.19 (13)	79	01:03	01:13	54.34.019	001.16.206	21	NØ 5 m/sec
Lonny Hedvig	26-11-2018	SW Path & SW Rough	1r	DK4	3861.19 (13)	80	01:20	01:30	54.34.248	001.15.560	21	
Lonny Hedvig	26-11-2018	SW Path & SW Rough	1r	DK4	3861.19 (13)	81	01:37	01:47	54.33.812	001.15.723	21	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.03(1)	82	16:19	16:29	54.12.141	000.50.577	40-30	ØNØ 5 m/sec
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.03(1)	83	16:45	16:55	54.12.503	000.50.321	50-30	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.03(1)	84	17:04	17:14	54.12.058	000.50.1001	50-30	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.04 (2)	85	17:51	18:01	54.15.444	000.48.216	47-36	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.04 (2)	86	18:13	18:23	54.15.906	000.48.258	60-35	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.04 (2)	87	18:31	18:41	54.15.734	000.47.607	48-63	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.05 (3)	88	19:57	20:07	54.18.750	000.56.361	36-57	ØNØ 7 m/sec
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.05 (3)	89	20:17	20:27	54.18.898	000.56.156	51-42	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3760.05 (3)	90	20:26	20:36	54.19.190	000.55.587	54-36	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3761.08 (5)	91	23:07	23:17	54.11.474	001.34.318	25	ØSØ 5 m/sec
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3761.08 (5)	92	23:24	23:34	54.11.153	001.34.834	26	
Lonny Hedvig	26-11-2018	Outer Well Bank	1r	DK4	3761.08 (5)	93	23:40	23:50	54.11.592	001.34.891	26	
Lonny Hedvig	27-11-2018	Outer Well Bank	1r	DK4	3762.02 (7)	94	01:53	02:03	54.09.013	002.03.214	23	
Lonny Hedvig	27-11-2018	Outer Well Bank	1r	DK4	3762.02 (7)	95	02:10	02:20	54.08.750	002.03.588	22	
Lonny Hedvig	27-11-2018	Outer Well Bank	1r	DK4	3762.02 (7)	96	02:27	02:37	54.09.161	002.03.759	23	
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.05 (115)	97	16:20	16:30	53.47.737	002.05.071	23	SØ 10 m/sec
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.05 (115)	98	16:37	16:47	53.47.918	002.05.770	21	
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.05 (115)	99	16:55	17:05	53.48.087	002.05.131	21	
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.01 (111)	100	19:31	19:41	53.54.137	002.35.873	27	SØ 15 m/sec
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.01 (111)	101	19:49	19:59	53.54.168	002.36.602	30	
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.01 (111)	102	20:06	20:16	53.54.476	002.36.147	28	
Lonny Hedvig	27-11-2018	Grusbane &	1r	DK4	3662.02 (112)	103	21:33	21:43	53.51.268	002.46.192	31	ØSØ 15 m/sec

		Markedsplads										
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.02 (112)	104	21:52	22:02	53.50.958	002.46.563	32	
Lonny Hedvig	27-11-2018	Grusbane & Markedsplads	1r	DK4	3662.02 (112)	105	22:08	22:18	53.51.530	002.46.736	31	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3765.01	106	16:26	16:36	53.19.069	004.50.790	17	S 6 m/sec
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3765.01	107	16:48	16:58	53.19.188	004.51.344	16	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3765.01	108	17:08	17:18	53.19.484	004.50.801	15	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.02	109	21:54	22:04	52.56.272	004.10.998	25	SSW 13 m/sec
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.02	110	22:14	22:24	52.56.258	004.10.526	23	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.02	111	22:32	22:42	52.55.845	004.10.759	23	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.01	112	00:01	00:11	52.48.230	004.04.801	22	SSW 11 m/sec
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.01	113	00:19	00:29	52.48.039	004.03.261	20	
Lonny Hedvig	30-11-2018	Hjørnet & Holland Bank	1r	DK4	3464.01	114	00:38	00:48	52.47.837	004.04.813	20	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3363.01 (123)	115	20:34	20:44	52.29.884	003.18.725	22	S 12 m/sec
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3363.01 (123)	116	20:53	21:03	52.29.884	003.18.725	26	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3363.01 (123)	117	21:13	21:23	52.29.435	003.18.676	20	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.02 (02)	118	22:53	23:03	52.43.445	003.18.777	12	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.02 (02)	119	23:12	23:22	52.43.170	003.18.454	16	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.02 (02)	120	23:30	23:40	52.43.116	003.18.996	19	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.01 (124)	121	01:01	01:11	52.50.860	003.04.049	22	SSW 12 m/sec
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.01 (124)	122	01:18	01:28	52.50.508	003.03.744	23	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3463.01 (124)	123	01:37	01:47	52.50.516	003.04.393	21	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3563.01 (125)	124	02:43	02:53	52.58.128	003.02.028	20	SSW 11 m/sec
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3563.01 (125)	125	03:01	03:11	52.58.476	003.02.287	20	
Lonny Hedvig	01-12-2018	Brune Banke	1r	DK4	3563.01 (125)	126	03:18	03:28	52.58.427	003.01.588	20	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (118)	127	16:19	16:29	53.18.145	001.46.837	15	SW 8 m/sec
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (118)	128	16:37	16:47	53.18.511	001.46.886	13-17	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (118)	129	16:56	17:06	53.18.134	001.46.658	16-13	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.03 (122)	130	17:57	18:07	53.17.293	001.34.060	10	SW 10 m/sec
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.03 (122)	131	18:15	18:25	53.17.532	001.33.329	10	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.03 (122)	132	18:31	18:41	53.17.055	001.33.583	10	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (129)	133	20:49	20:59	53.28.600	001.04.441		SW 13 m/sec
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (129)	134	21:07	21:17	53.28.215	001.04.495		
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.01 (129)	135	21:24	21:34	53.28.410	001.05.152		
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.02 (130)	136	22:51	23:01	53.36.286	001.16.742	16	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.02 (130)	137	23:18	23:28	53.36.328	001.17.459	17	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3561.02 (130)	138	23:35	23:45	53.36.652	001.17.115	18	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3661.02 (109)	139	01:39	01:49	53.40.888	001.44.260	22	SW 8 m/sec

Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3661.02 (109)	140	01:50	02:00	53.40.838	001.44.931	22	
Lonny Hedvig	02-12-2018	Over Bank til Well Hole	1r	DK4	3661.02 (109)	141	02:07	02:17	53.41.188	001.44.732	22	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.03 (120)	142	16:24	16:34	53.14.208	002.04.410	8	NNW 10 m/sec
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.03 (120)	143	16:42	16:52	53.14.618	002.04.194	10	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.03 (120)	144	17:00	17:10	53.14.231	002.03.713		
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.02 (117)	145	17:50	18:00	53.19.131	002.07.291	13	NNW 10 m/sec
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.02 (117)	146	18:08	18:18	53.19.571	002.07.220	15	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3562.02 (117)	147	18:26	18:36	53.19.350	002.06.701	12	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.01 (116)	148	19:45	19:55	53.24.825	002.08.749	12	NNW 10 m/sec
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.01 (116)	149	20:04	20:14	53.25.094	002.09.366	12	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.01 (116)	150	20:25	20:35	53.25.251	002.08.634	12	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.04 (114)	151	21:59	22:09	53.31.825	002.24.887	14	NNW 10 m/sec
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.04 (114)	152	22:17	22:27	53.32.088	002.25.387	15	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.04 (114)	153	22:35	22:45	53.32.179	002.24.751	13	
Lonny Hedvig	03-12-2018	Stor Banan	1r	DK4	3662.03 (113)	154	23:45	23:55	53.39.401	002.25.395	20	
Lonny Hedvig	04-12-2018	Stor Banan	1r	DK4	3662.03 (113)	155	00:06	00:16	53.39.776	002.25.758	20	
Lonny Hedvig	04-12-2018	Stor Banan	1r	DK4	3662.03 (113)	156	00:25	00:35	53.39.805	002.25.092	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.06 (94)	157	19:47	19:57	54.35.688	007.29.988	21	NNW 10 m/sec
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.06 (94)	158	20:06	20:16	54.35.625	007.30.689	20	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.06 (94)	159	20:23	20:33	54.35.965	007.30.488	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.02 (93)	160	21:49	21:59	54.41.826	007.18.201	22	NNW 8 m/sec
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.02 (93)	161	22:07	22:17	54.42.007	007.18.026	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.02 (93)	162	22:24	22:34	54.41.792	007.17.626	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.05 (92)	163	23:15	23:25	54.46.976	007.18.089	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.05 (92)	164	23:32	23:42	54.47.332	007.18.270	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3867.05 (92)	165	23:51	00:01	54.47.307	007.17.726	21	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3866.01 (90)	166	02:08	02:18	54.57.787	006.55.802	27	W 10 m/sec
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3866.01 (90)	167	02:37	02:47	54.58.122	006.55.642	26	
Lonny Hedvig	04-12-2018	Amrum Bank	1r	DK4	3866.01 (90)	168	02:27	02:47	54.57.881	006.55.234	26	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.05 (89)	169	16:17	16:27	55.05.968	006.53.761	24	TBK 1/43 cm 40 gr.
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.05 (89)	170	16:35	16:45	55.05.707	006.54.060	25	TBK 1/34; 1/45 . 46 gr
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.05 (89)	171	16:53	17:03	55.05.971	006.54.382	23	TBK 1/49; 34 gr. SØ 12 m/sec
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.03 (87)	172	18:44	18:54	55.17.932	006.48.957	22	SØ 12 m/sec
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.03 (87)	173	19:01	19:11	55.17.957	006.49.559	22	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3966.03 (87)	174	19:18	19:28	55.18.251	006.49.286	21	TBK 1/46; 26 gr
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.02 (100)	175	21:52	22:02	55.07.639	007.17.586	19	TBK 1/38; 18 gr.
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.02 (100)	176	22:10	22:20	55.07.289	007.17.563	20	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.02 (100)	177	22:28	22:38	55.07.471	007.17.974	20	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.06 (99)	178	23:38	23:48	55.07.804	007.31.047	20	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.06 (99)	179	23:55	00:05	55.07.701	007.31.582	20	
Lonny Hedvig	05-12-2018	komandobr oen	1r	DK4	3967.06 (99)	180	00:13	00:23	55.08.028	007.31.516	20	
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.05	1	16:24	16:34	56.39.850	004.24.646	52	7m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.05	2	16:45	16:55	56.39.622	004.24.878	52	7m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.05	3	17:08	17:18	56.39.811	004.25.277	52	7m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.03	4	18:57	19:07	56.39.989	004.09.416	50	4m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.03	5	19:18	19:28	56.40.156	004.08.866	50	4m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4264.03	6	19:38	19:48	56.39.908	004.08.865	50	4m/sec

Reykjanes	22-11-2018	Norsk	3r	DK3	4263.03	7	22.03	22.06	56.49.090	003.49.006	56	8m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4263.03	8	22.15	22.18	56.49.158	003.49.053	56	8m/sec
Reykjanes	22-11-2018	Norsk	3r	DK3	4263.03	9	22.33	22.36	56.49.087	003.48.894	56	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4263.02	10	23.50	23.53	56.48.779	003.42.690	59	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4263.02	11	00.32	00.35	56.48.797	003.42.547	59	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4263.02	12	01.00	01.03	56.48.779	003.42.607	59	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.05	13	16.18	16.28	57.38.767	003.05.125	64	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.05	14	16.40	16.50	57.38.607	003.05.247	64	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.05	15	17.02	17.12	57.38.806	003.05.571	64	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.03	16	19.38	19.48	57.44.991	003.40.117	67	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.03	17	20.00	20.10	57.44.951	003.40.508	67	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	4463.03	18	20.24	20.34	57.45.171	003.40.292	67	8m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	2014.1	19	22.57	23.07	57.44.793	004.12.304	72	7m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	2014.1	20	23.22	23.32	57.44.711	004.12.432	72	7m/sec
Reykjanes	23-11-2018	Norsk	3r	DK3	2014.1	21	23.45	23.55	57.44.914	004.12.657	72	7m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.04	22	01.00	01.10	57.43.548	004.18.716	68	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.04	23	01.22	01.32	57.43.362	004.18.923	68	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.04	24	01.48	01.58	57.43.540	004.19.185	68	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.05	25	02.54	03.04	57.38.811	004.18.468	69	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.05	26	03.18	03.28	57.38.580	004.18.443	69	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4464.05	27	03.47	03.57	57.38.740	004.18.298	69	6m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.08	28	16.13	16.23	57.07.921	005.12.822	54	13m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.08	29	16.36	16.46	57.07.785	005.13.139	54	13m/sec Meget sand/grus
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.08	30	17.08	17.18	57.07.784	005.12.811	54	13m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.13	31	18.39	18.49	57.02.345	005.06.027	57	15m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.13	32	19.02	19.12	57.02.148	005.05.671	57	15m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4365.13	33	19.21	19.31	57.02.091	005.06.288	57	15m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.05	34	21.12	21.22	57.09.401	004.43.380	56	16m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.05	35	21.34	21.44	57.09.278	004.43.785	56	16m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.05	36	22.00	22.10	57.09.249	004.43.466	56	16m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.07	37	23.39	23.49	57.18.089	004.33.583	60	16m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.07	38	00.00	00.10	57.17.963	004.34.000	60	16m/sec
Reykjanes	24-11-2018	Norsk	3r	DK3	4364.07	39	00.27	00.37	57.17.923	004.33.705	60	16m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4364.08	40	02.00	02.10	57.20.093	004.14.790	67	16m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4364.08	41	02.22	02.32	57.19.919	004.15.201	67	16m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4364.08	42	02.48	02.58	57.19.939	004.14.921	67	16m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.1	43	16.25	16.35	57.11.583	005.48.275	55	14m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.1	44	16.48	16.58	57.11.453	005.48.606	55	14m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.1	45	17.17	17.27	57.11.479	005.48.363	55	14m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.04	46	19.24	19.34	57.08.507	005.28.348	47	11m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.04	47	19.49	19.59	57.08.352	005.28.611	47	11m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.04	48	20.14	20.24	57.08.644	005.28.769	47	11m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.01	49	21.41	21.51	57.15.145	005.31.365	57	14m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.01	50	22.06	22.16	57.15.352	005.31.797	57	14m/sec
Reykjanes	25-11-2018	Norsk	3r	DK3	4365.01	51	22.30	22.40	57.15.391	005.31.144	57	14m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4365.12	52	00.44	00.54	57.16.474	005.06.232	53	6m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4365.12	53	01.06	01.16	57.16.611	005.05.653	53	6m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4365.12	54	01.30	01.40	57.16.334	005.05.786	53	6m/sec

Reykjanes	26-11-2018	Norsk	3r	DK3	4366.13	55	16.07	16.17	57.07.102	006.28.551	56	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4366.13	56	16.27	16.37	57.07.366	006.28.401	56	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4366.13	57	16.49	16.59	57.07.162	006.27.961	56	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4366.06	58	18.25	18.35	57.06.117	006.07.827	51	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4366.06	59	18.47	18.57	57.06.213	006.07.349	51	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	4366.06	60	19.11	19.21	57.05.950	006.07.310	51	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	2014.08	61	20.34	20.44	56.56.288	006.03.811	54	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	2014.08	62	21.00	21.10	56.56.059	006.03.448	54	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	2014.08	63	21.21	21.31	56.56.039	006.03.996	54	3m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	2014.07	64	23.16	23.26	56.50.553	005.38.078	51	2m/sec
Reykjanes	26-11-2018	Norsk	3r	DK3	2014.07	65	23.39	23.49	56.50.605	005.37.572	51	2m/sec
Reykjanes	27-11-2018	Norsk	3r	DK3	2014.07	66	00.00	00.10	56.50.332	005.37.791	51	2m/sec
Reykjanes	27-11-2018	Norsk	3r	DK3	4365.11	67	01.30	01.40	57.00.221	005.40.859	50	3m/sec
Reykjanes	27-11-2018	Norsk	3r	DK3	4365.11	68	01.53	02.03	57.00.459	005.41.223	50	3m/sec
Reykjanes	27-11-2018	Norsk	3r	DK3	4365.11	69	02.15	02.25	57.00.482	005.40.586	50	3m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4366.11	70	16.00	16.10	57.04.493	006.41.568	54	14m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4366.11	71	16.22	16.32	57.04.562	006.40.997	54	14m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4366.11	72	16.43	16.53	57.04.322	006.41.176	54	14m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.02	73	18.36	18.46	57.02.589	007.59.956	43	12m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.02	74	19.00	19.10	57.02.363	007.00.234	43	12m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.02	75	19.20	19.30	57.02.474	007.59.798	43	12m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.06	76	20.10	20.20	57.03.084	007.05.969	29	15m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.06	77	20.27	20.37	57.03.069	007.06.461	29	15m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.06	78	20.47	20.57	57.03.273	007.06.189	29	15m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.16	79	22.45	22.55	57.05.456	007.25.867	26	14m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.16	80	23.03	23.13	57.05.375	007.26.540	26	14m/sec
Reykjanes	27-11-2018	Tails End	3r	DK3	4367.16	81	23.22	23.32	57.05.677	007.26.161	26	14m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4479.01	82	16.02	16.12	57.42.118	010.02.918	23	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4479.01	83	16.24	16.34	57.42.253	010.03.390	23	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4479.01	84	16.43	16.52	57.42.304	010.03.255	23	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.02	85	20.19	20.29	57.54.328	009.32.399	21	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.02	86	20.38	20.48	57.34.552	009.31.976	21	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.02	87	20.54	21.04	57.34.247	009.31.933	21	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.03	88	22.37	22.47	57.36.971	009.18.937	25	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.03	89	22.56	23.06	57.37.203	009.18.497	25	5m/sec
Reykjanes	01-12-2018	Skagerrak	3r	DK3	4469.03	90	23.16	23.26	57.36.962	009.18.460	25	5m/sec
Reykjanes	02-11-2018	Skagerrak	3r	DK3	4469.01	91	01.10	01.20	57.31.674	009.13.908	20	13m/sec
Reykjanes	02-11-2018	Skagerrak	3r	DK3	4469.01	92	01.28	01.38	57.31.514	009.13.542	20	13m/sec
Reykjanes	02-11-2018	Skagerrak	3r	DK3	4469.01	93	01.47	01.57	57.31.322	009.14.083	20	13m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.02	94	16.00	16.10	57.27.476	009.11.382	19	7m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.02	95	16.19	16.29	57.27.383	009.10.897	19	7m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.02	96	16.41	16.51	57.27.521	009.11.205	19	7m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.01	97	18.14	18.24	57.28.535	009.08.590	21	10m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.01	98	18.34	18.44	57.28.612	009.08.085	21	10m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4369.01	99	18.52	19.02	57.28.360	009.08.341	21	10m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4368.06	100	21.52	22.02	57.24.137	008.38.301	27	8m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4368.06	101	22.13	22.23	57.24.442	008.38.413	27	8m/sec
Reykjanes	02-12-2018	Skagerrak	3r	DK3	4368.06	102	22.30	22.40	57.24.338	008.37.910	27	8m/sec

Reykjanes	03-12-2018	Skagerrak	3r	DK3	4368.05	103	00.01	00.11	57.22.120	008.32.946	33	8m/sec
Reykjanes	03-12-2018	Skagerrak	3r	DK3	4368.05	104	00.20	00.30	57.22.259	008.32.435	33	8m/sec
Reykjanes	03-12-2018	Skagerrak	3r	DK3	4368.05	105	00.40	00.50	57.21.980	008.32.489	33	8m/sec
Reykjanes	04-12-2018	Skagerrak	3r	DK3	4368.03	106	21.10	21.20	57.12.299	008.31.477	21	10m/sec
Reykjanes	04-12-2018	Skagerrak	3r	DK3	4368.03	107	21.33	21.43	57.12.521	008.31.458	21	10m/sec
Reykjanes	04-12-2018	Skagerrak	3r	DK3	4368.03	108	21.53	22.03	57.12.211	008.31.334	21	10m/sec
Reykjanes	04-12-2018	Skagerrak	3r	DK3	4368.01	109	23.13	23.23	57.05.831	008.26.128	21	10m/sec
Reykjanes	04-12-2018	Skagerrak	3r	DK3	4368.01	110	23.34	23.44	57.06.011	008.26.491	21	10m/sec
Reykjanes	05-12-2018	Skagerrak	3r	DK3	4367.01	111	23.56	24.06	57.05.905	008.26.354	21	10m/sec
Reykjanes	05-12-2018	Skagerrak	3r	DK3	4368.02	112	00.48	00.58	57.03.755	008.20.985	21	8m/sec
Reykjanes	05-12-2018	Skagerrak	3r	DK3	4368.02	113	01.09	01.19	57.03.987	008.21.401	21	8m/sec
Reykjanes	05-12-2018	Skagerrak	3r	DK3	4368.02	114	01.32	01.42	57.03.824	008.21.291	21	8m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4367.23	115	16.09	16.19	57.04.916	007.40.566	28	7m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4367.23	116	16.25	16.38	57.05.014	007.40.039	28	7m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4367.23	117	16.48	16.58	57.04.837	007.40.425	28	7m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.25	118	18.33	18.43	56.58.940	007.42.074	22	5m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.25	119	18.53	19.03	56.59.073	007.41.568	22	5m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.25	120	19.14	19.24	56.58.771	007.41.647	22	5m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.27	212	20.23	20.33	56.54.876	007.36.440	24	10m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.27	122	20.43	30.53	56.54.754	007.35.904	24	10m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.27	123	21.02	21.12	56.54.648	007.36.505	24	10m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4267.12	124	22.41	22.51	56.56.600	007.26.078	27	10m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4367.12	125	23.00	23.10	56.56.614	007.25.463	27	10m/sec
Reykjanes	05-12-2018	Tails End	3r	DK3	4367.12	126	23.18	23.28	56.56.702	007.25.815	27	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.05	127	16.05	16.15	55.57.477	007.15.640	26	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.05	128	16.25	16.35	55.57.373	007.15.201	26	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.05	129	16.46	16.56	55.57.390	007.15.837	26	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.04	130	18.36	18.46	55.49.925	007.24.706	25	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.04	131	18.54	19.04	55.49.597	007.24.559	25	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.04	132	19.14	19.24	55.49.792	007.25.087	25	10m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.02	133	20.36	20.46	55.43.748	007.28.553	22	12m/sec Position flyttet da den ligger i vindmøllepark
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.02	134	20.55	21.05	55.43.387	007.28.529	22	12m/sec Position flyttet da den ligger i vindmøllepark
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.02	135	21.16	21.26	55.43.574	007.28.969	22	12m/sec Position flyttet da den ligger i vindmøllepark
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.07	136	23.04	23.14	55.37.698	007.25.690	17	9m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.07	137	23.28	23.38	55.37.705	007.25.230	17	9m/sec
Reykjanes	06-12-2018	West Coast Jutland Reykjanes	2r	DK3	4067.07	138	23.50	00.00	55.37.579	007.25.720	17	9m/sec

Tabel 2. List of sediment samples using the van Veen sediment sampler.

Dato	Redskab	Banke	Position	Station	Start	Lattude	Longitude
05-12-2018	V.Veen	Tails End	4367.23	115		57.04.897	007.40.434

05-12-2018	V.Veen	Tails End	4267.25	118		56.59.048	007.41.748
05-12-2018	V.Veen	Tails End	4267.27	212		56.54.730	007.36.146
05-12-2018	V.Veen	Tails End	4267.12	124		56.56.471	007.25.761
06-12-2018	V.Veen	West Coast Jutland	4067.05	127		55.57.278	007.15.478
06-12-2018	V.Veen	West Coast Jutland	4067.04	130		55.49.748	007.24.564
06-12-2018	V.Veen	West Coast Jutland	4067.02	133		55.43.576	007.28.592
06-12-2018	V.Veen	West Coast Jutland	4067.07	136		55.37.617	007.25.427
01-12-2018	V.Veen	Skagerrak	4479.01	82		57.42.143	010.03.323
01-12-2018	V.Veen	Skagerrak	4469.02	85		57.34.373	009.31.968
01-12-2018	V.Veen	Skagerrak	4469.03	88		57.37.019	009.18.594
02-11-2018	V.Veen	Skagerrak	4469.01	91		57.31.452	009.13.872
02-12-2018	V.Veen	Skagerrak	4369.01	97		57.28.451	009.08.269
02-12-2018	V.Veen	Skagerrak	4368.06	100		57.24.260	008.38.164
03-12-2018	V.Veen	Skagerrak	4368.05	103		57.22.050	008.32.599
04-12-2018	V.Veen	Skagerrak	4368.03	106		57.12.391	008.31.249
04-11-2018	V.Veen	Skagerrak	4368.01	109		57.06.164	008.26.093
05-11-2018	V.Veen	Skagerrak	4368.02	112		57.03.963	008.21.027
22-11-2018	V.Veen	Norsk	4264.05	1	16.03	56.39.800	004.24.988
22-11-2018	V.Veen	Norsk	4264.03	4	21.00	56.40.019	004.08.942
22-11-2018	V.Veen	Norsk	4263.03	7	23.00	56.49.079	003.48.967
23-11-2018	V.Veen	Norsk	4263.02	10	01.36	56.48.802	003.42.812
23-11-2018	V.Veen	Norsk	4463.05	13	16.10	57.38.778	003.05.189
23-11-2018	V.Veen	Norsk	4463.03	16	20.49	57.45.006	003.40.340
24-11-2018	V.Veen	Norsk	2014.10	19	00.10	57.44.826	004.12.405
24-11-2018	V.Veen	Norsk	4464.04	22	02.11	57.43.550	004.19.001
24-11-2018	V.Veen	Norsk	4464.05	25	04.10	57.38.745	004.18.549
24-11-2018	V.Veen	Norsk	4365.08	28	16.03	57.07.878	005.12.949
24-11-2018	V.Veen	Norsk	4365.08	28	16.03	57.07.878	005.12.949
25-11-2018	V.Veen	Norsk	4365.04	46	19.00	57.08.456	005.28.523
25-11-2018	V.Veen	Norsk	4365.01	49	21.31	57.15.309	005.31.394
26-11-2018	V.Veen	Norsk	4365.12	52	02.00	57.16.480	005.06.014
26-11-2018	V.Veen	Norsk	4366.13	55		57.07.175	006.28.218
26-11-2018	V.Veen	Norsk	4366.06	58		57.06.072	006.07.511
26-11-2018	V.Veen	Norsk	2014.08	61		56.56.092	006.03.601
27-11-2018	V.Veen	Norsk	2014.07	64		56.50.528	005.37.742
27-11-2018	V.Veen	Norsk	4365.11	67		57.00.380	005.40.847
27-11-2018	V.Veen	Tails End	4366.11	70		57.04.481	006.41.418
27-11-2018	V.Veen	Tails End	4367.02	73		57.02.501	007.02.501
27-11-2018	V.Veen	Tails End	4367.06	76		57.03.139	007.06.311