

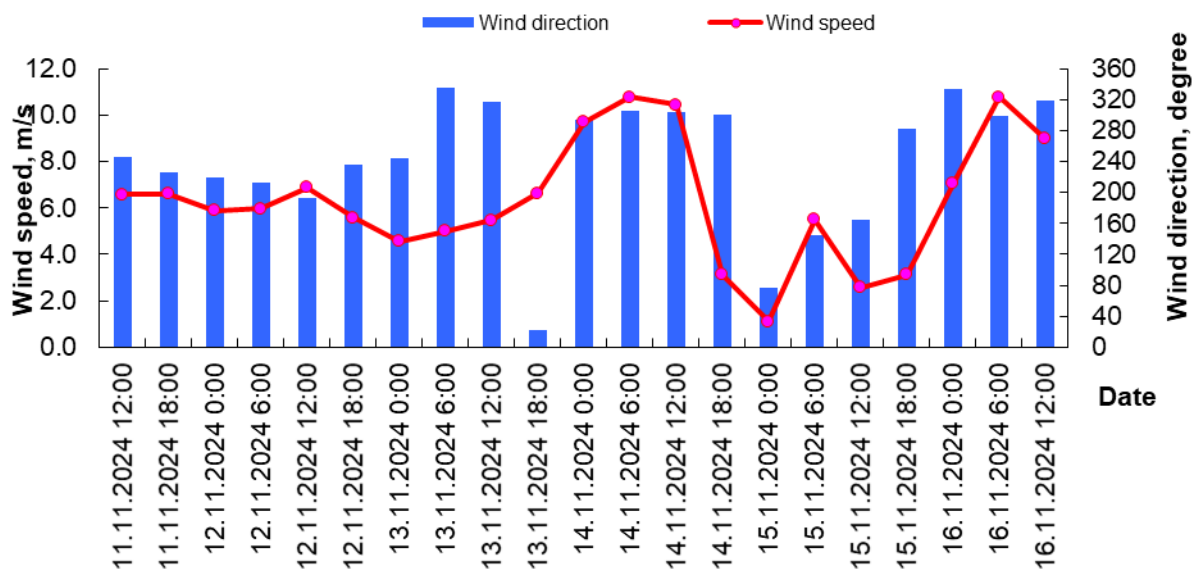


MINISTRY OF ECOLOGY AND NATURAL RESOURCES  
OF THE REPUBLIC OF KAZAKHSTAN

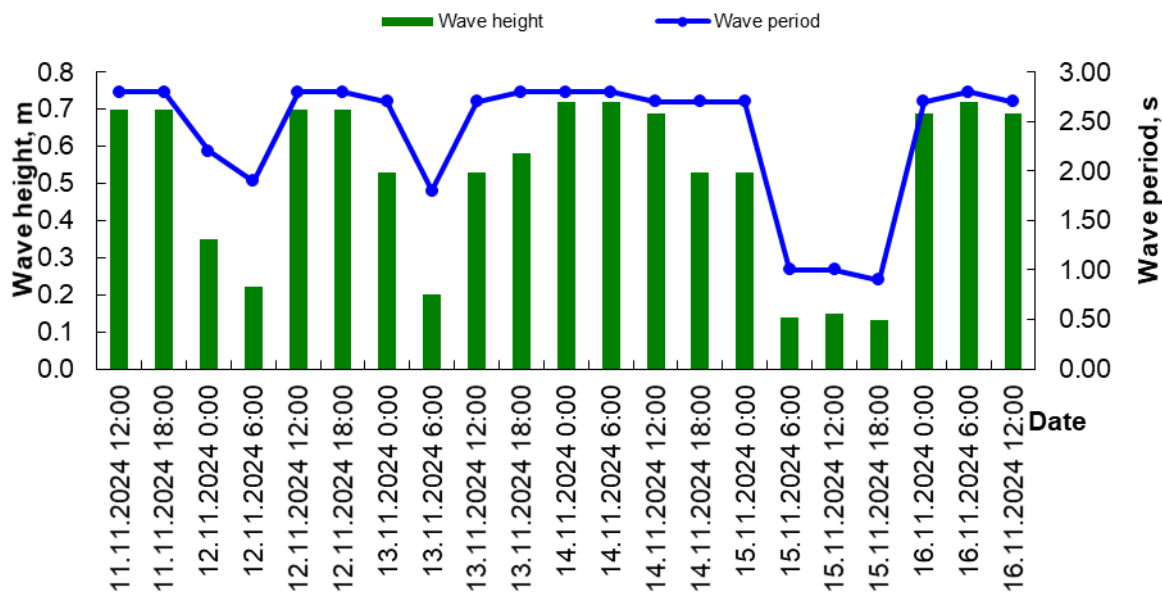
RSE «KAZHYDROMET»

Wave and wind forecast for the Middle part of the Caspian Sea with a 5-day  
advance for the period November 11 – 16, 2024

Wind condition in the 21050 unit

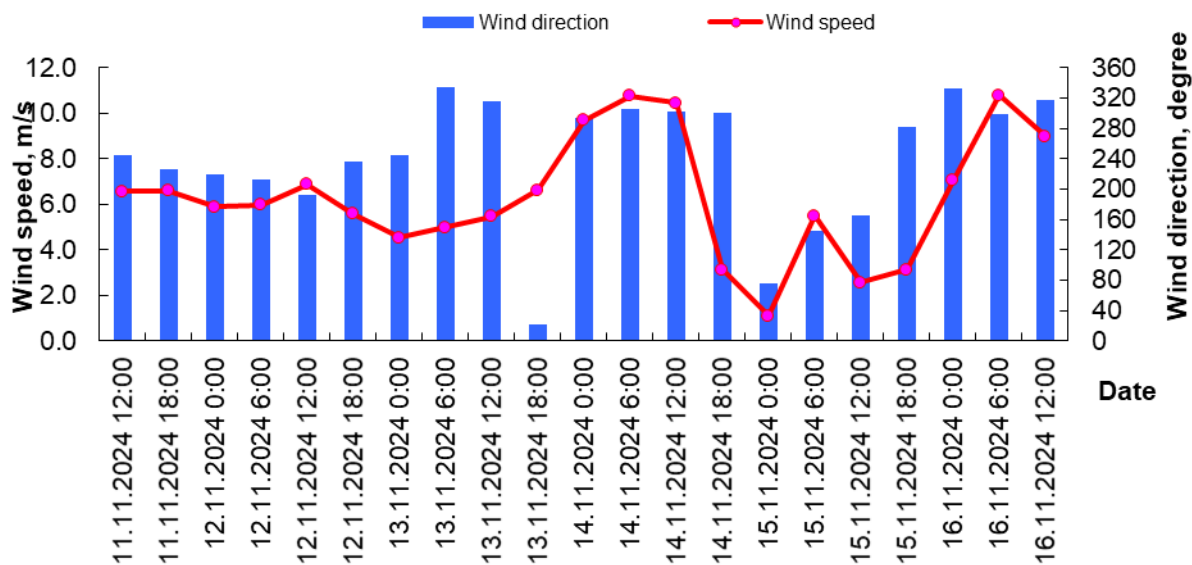


Wave condition in the 21050 unit

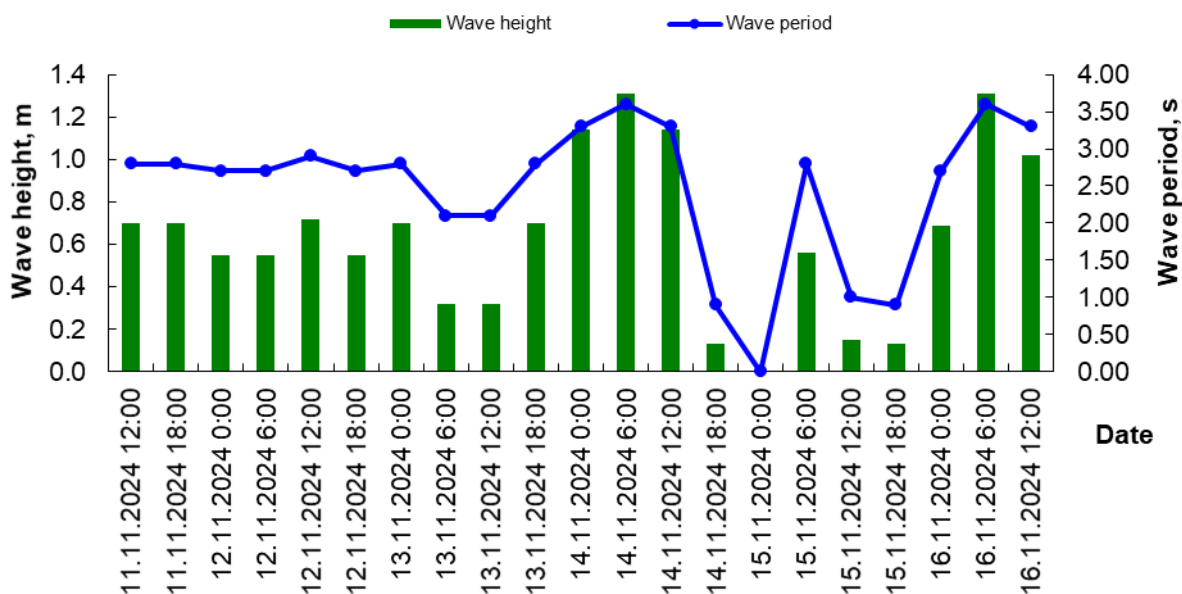


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period ( $\tau$ )	
	WS, m/s	WD, rumb	H, m	t, s
11.11.2024 12:00	7	SW	0.70	2.80
11.11.2024 18:00	7	SW	0.70	2.80
12.11.2024 0:00	5	SW	0.35	2.20
12.11.2024 6:00	4	SW	0.22	1.90
12.11.2024 12:00	7	S	0.70	2.80
12.11.2024 18:00	7	SW	0.70	2.80
13.11.2024 0:00	6	SW	0.53	2.70
13.11.2024 6:00	4	NW	0.20	1.80
13.11.2024 12:00	6	NW	0.53	2.70
13.11.2024 18:00	6	N	0.58	2.80
14.11.2024 0:00	8	NW	0.72	2.80
14.11.2024 6:00	8	NW	0.72	2.80
14.11.2024 12:00	7	NW	0.69	2.70
14.11.2024 18:00	6	NW	0.53	2.70
15.11.2024 0:00	6	E	0.53	2.70
15.11.2024 6:00	3	SE	0.14	1.00
15.11.2024 12:00	3	S	0.15	1.00
15.11.2024 18:00	3	W	0.13	0.90
16.11.2024 0:00	7	NW	0.69	2.70
16.11.2024 6:00	8	NW	0.72	2.80
16.11.2024 12:00	7	NW	0.69	2.70

### Wind condition in the 21141 unit

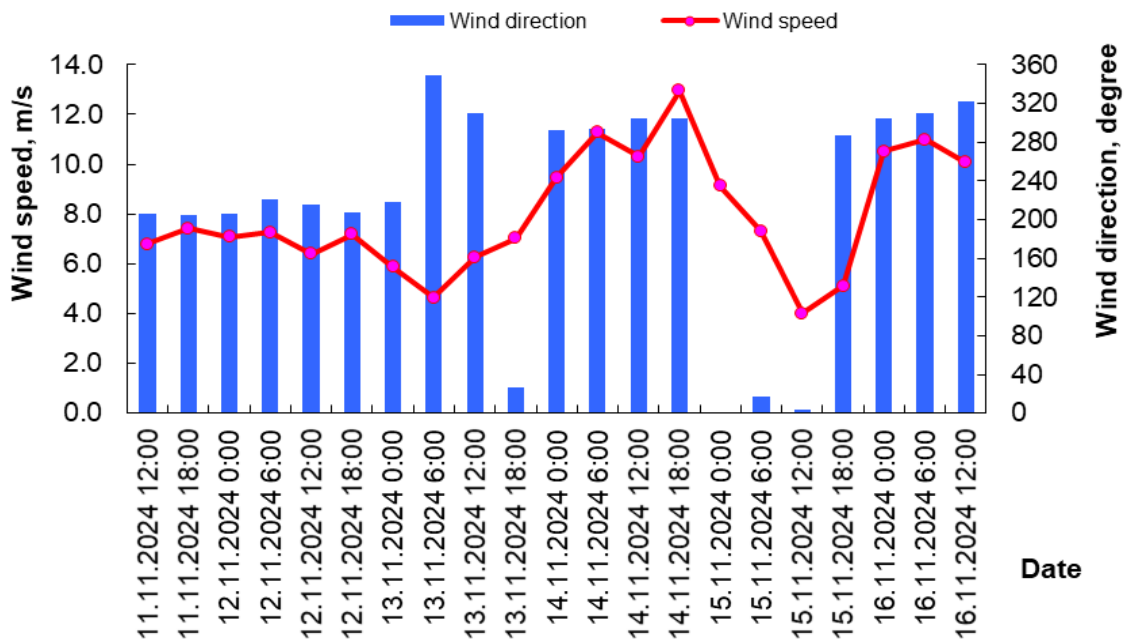


### Wave condition in the 21141 unit

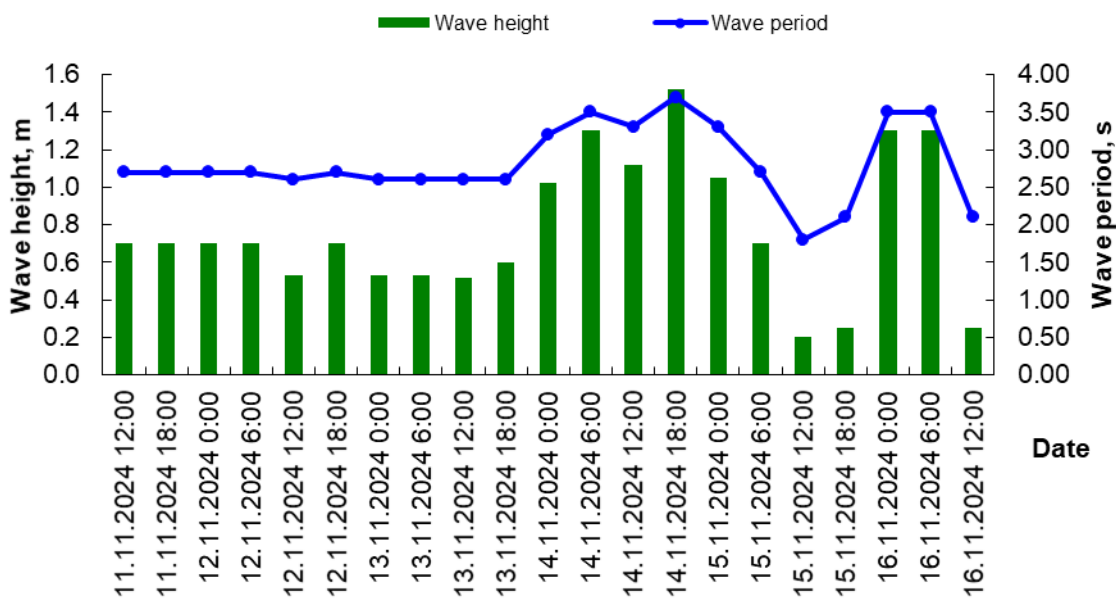


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period ( $\tau$ )	
	WS, m/s	WD, rumb	H, m	t, s
11.11.2024 12:00	7	SW	0.70	2.80
11.11.2024 18:00	7	SW	0.70	2.80
12.11.2024 0:00	6	SW	0.55	2.70
12.11.2024 6:00	6	SW	0.55	2.70
12.11.2024 12:00	7	S	0.72	2.90
12.11.2024 18:00	6	SW	0.55	2.70
13.11.2024 0:00	7	SW	0.70	2.80
13.11.2024 6:00	5	NW	0.32	2.10
13.11.2024 12:00	5	NW	0.32	2.10
13.11.2024 18:00	7	N	0.70	2.80
14.11.2024 0:00	10	NW	1.14	3.30
14.11.2024 6:00	11	NW	1.31	3.60
14.11.2024 12:00	10	NW	1.14	3.30
14.11.2024 18:00	3	NW	0.13	0.90
15.11.2024 0:00	1	E	0.00	0.00
15.11.2024 6:00	6	SE	0.56	2.80
15.11.2024 12:00	3	S	0.15	1.00
15.11.2024 18:00	3	W	0.13	0.90
16.11.2024 0:00	7	NW	0.69	2.70
16.11.2024 6:00	11	NW	1.31	3.60
16.11.2024 12:00	9	NW	1.02	3.30

### Wind condition in the 21142 unit

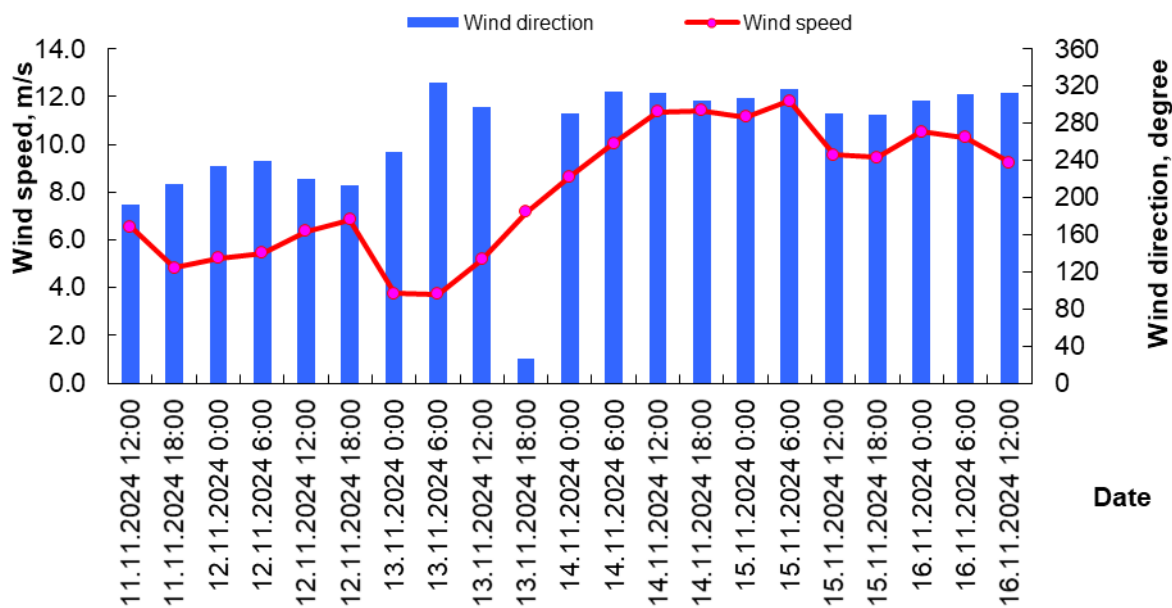


### Wave condition in the 21142 unit

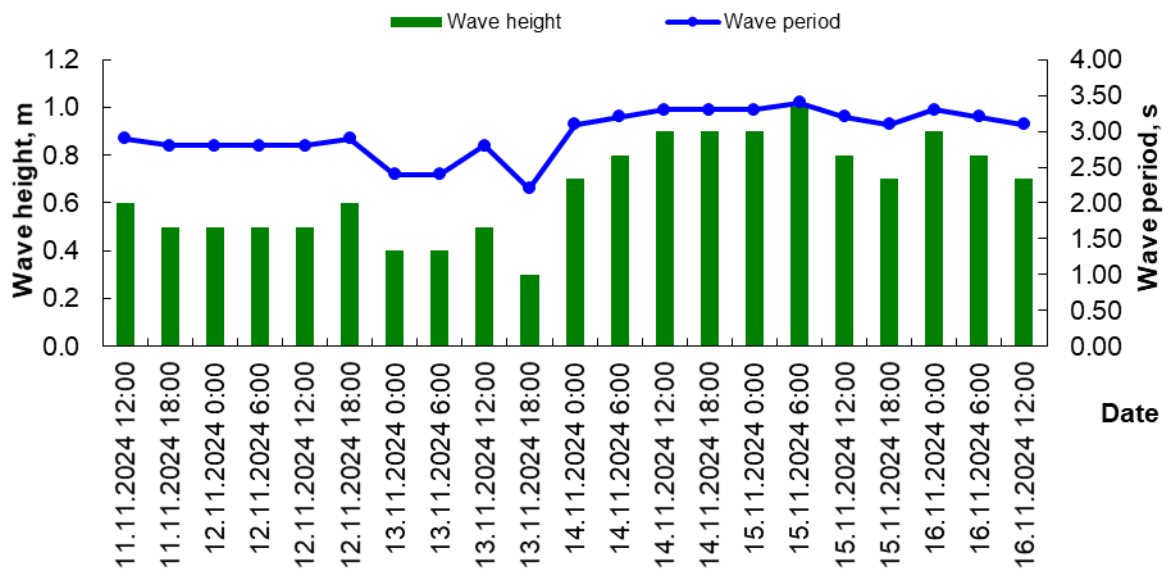


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period ( $\tau$ )	
	WS, m/s	WD, rumb	H, m	t, s
11.11.2024 12:00	7	SW	0.70	2.70
11.11.2024 18:00	7	SW	0.70	2.70
12.11.2024 0:00	7	SW	0.70	2.70
12.11.2024 6:00	7	SW	0.70	2.70
12.11.2024 12:00	6	SW	0.53	2.60
12.11.2024 18:00	7	SW	0.70	2.70
13.11.2024 0:00	6	SW	0.53	2.60
13.11.2024 6:00	6	N	0.53	2.60
13.11.2024 12:00	6	NW	0.52	2.60
13.11.2024 18:00	7	NE	0.60	2.60
14.11.2024 0:00	9	W	1.02	3.20
14.11.2024 6:00	11	NW	1.30	3.50
14.11.2024 12:00	10	NW	1.12	3.30
14.11.2024 18:00	13	NW	1.52	3.70
15.11.2024 0:00	9	N	1.05	3.30
15.11.2024 6:00	7	N	0.70	2.70
15.11.2024 12:00	4	N	0.20	1.80
15.11.2024 18:00	5	W	0.25	2.10
16.11.2024 0:00	11	NW	1.30	3.50
16.11.2024 6:00	11	NW	1.30	3.50
16.11.2024 12:00	5	NW	0.25	2.10

### Wind condition in the Bautino Bay



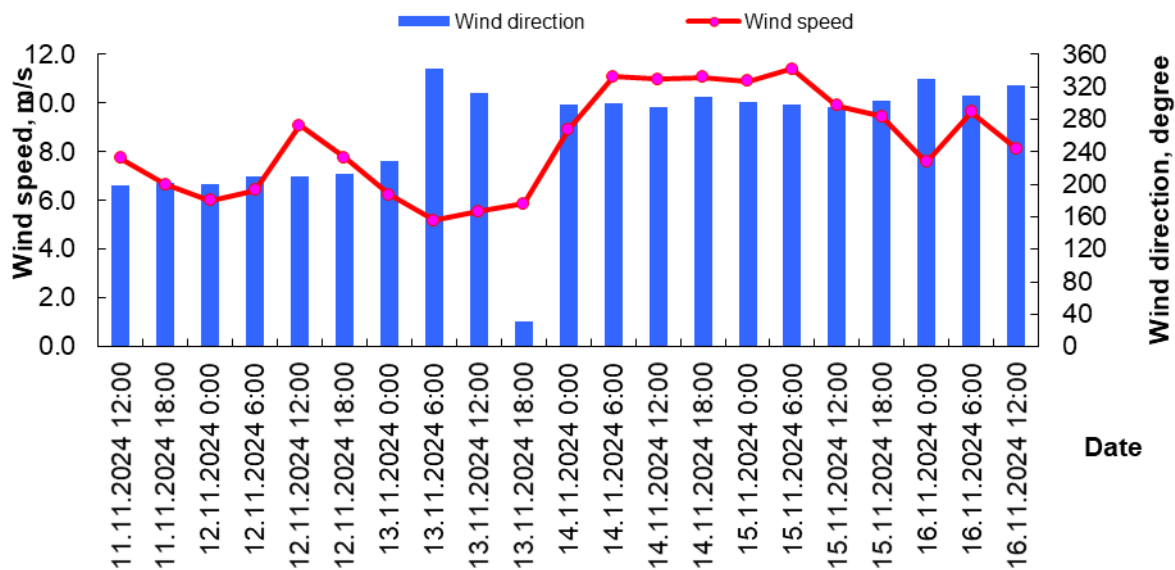
### Wave condition in the Bautino Bay



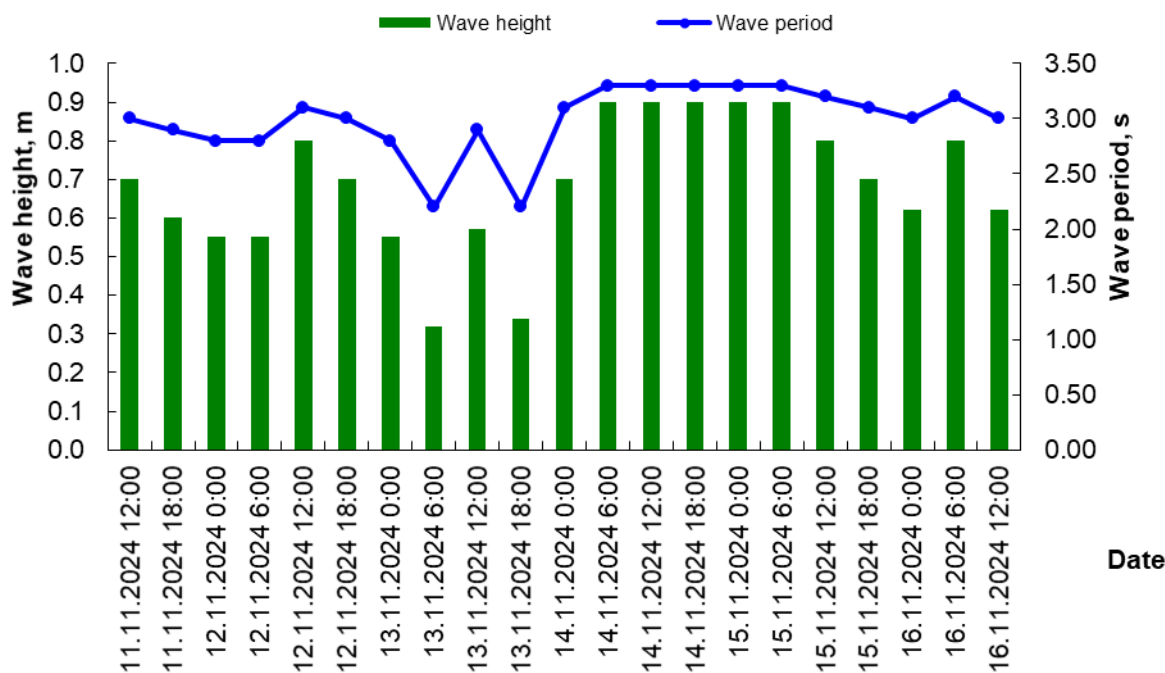
Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period ( $\tau$ )	
	WS, m/s	WD, rumb	H, m	t, s
11.11.2024 12:00	7	S	0.60	2.90
11.11.2024 18:00	5	SW	0.50	2.80
12.11.2024 0:00	5	SW	0.50	2.80
12.11.2024 6:00	5	SW	0.50	2.80
12.11.2024 12:00	6	SW	0.50	2.80
12.11.2024 18:00	7	SW	0.60	2.90
13.11.2024 0:00	4	W	0.40	2.40
13.11.2024 6:00	4	NW	0.40	2.40
13.11.2024 12:00	5	NW	0.50	2.80
13.11.2024 18:00	7	NE	0.30	2.20
14.11.2024 0:00	9	W	0.70	3.10
14.11.2024 6:00	10	NW	0.80	3.20
14.11.2024 12:00	11	NW	0.90	3.30
14.11.2024 18:00	11	NW	0.90	3.30
15.11.2024 0:00	11	NW	0.90	3.30
15.11.2024 6:00	12	NW	1.00	3.40
15.11.2024 12:00	10	W	0.80	3.20
15.11.2024 18:00	9	W	0.70	3.10
16.11.2024 0:00	11	NW	0.90	3.30
16.11.2024 6:00	10	NW	0.80	3.20
16.11.2024 12:00	9	NW	0.70	3.10



### Wind condition in the Kuryik Bay



### Wave condition in the Kuryik Bay



Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period ( $\tau$ )	
	WS, m/s	WD, rumb	H, m	t, s
11.11.2024 12:00	8	S	0.70	3.00
11.11.2024 18:00	7	S	0.60	2.90
12.11.2024 0:00	6	S	0.55	2.80
12.11.2024 6:00	6	SW	0.55	2.80
12.11.2024 12:00	9	SW	0.80	3.10
12.11.2024 18:00	8	SW	0.70	3.00
13.11.2024 0:00	6	SW	0.55	2.80
13.11.2024 6:00	5	N	0.32	2.20
13.11.2024 12:00	6	NW	0.57	2.90
13.11.2024 18:00	6	NE	0.34	2.20
14.11.2024 0:00	9	NW	0.70	3.10
14.11.2024 6:00	11	NW	0.90	3.30
14.11.2024 12:00	11	NW	0.90	3.30
14.11.2024 18:00	11	NW	0.90	3.30
15.11.2024 0:00	11	NW	0.90	3.30
15.11.2024 6:00	11	NW	0.90	3.30
15.11.2024 12:00	10	NW	0.80	3.20
15.11.2024 18:00	9	NW	0.70	3.10
16.11.2024 0:00	8	NW	0.62	3.00
16.11.2024 6:00	10	NW	0.80	3.20
16.11.2024 12:00	8	NW	0.62	3.00

Made by: Zhagparova N.N.

Checked by: Shishkina G.