

Case study – VLSFO spill

Silje Berger Project manager Norwegian Coastal Administration





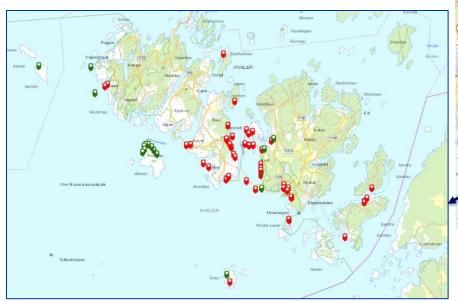
VLSFO spill

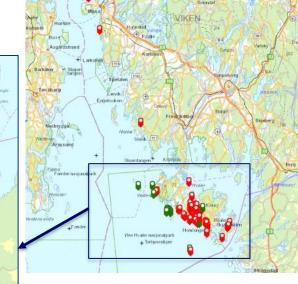


First observations on Norwegian side of the

border were reported 20.4.2022









Observations in the field





Døvika, Asmaløy

- Lumps of oil are washed a shore
- Mostly 3-15 cm diameter, some lumps up to 60 cm
- Some lumps have a «crust» and look old, but inside the oil is fresh
- The oil is expected to become more liquid with increasing temperatures and sunlight exposure





Observations in the field





Footprints from a swan observed at Kvernskjær

- Repeated stranding in the same (already cleaned) areas have been observed
- Few observations of oiled seabirds



Oil stuck to the bedrock





The clean-up operation





- The affected municipality in charge of a clean-up opeation
- A team from «Elv og Hav» with 3-5 persons have surveyed the coast line and collected oil from the shoreline
- Traditional manual clean-up techniques are used
- High priority areas are surveyed, but the operation also relies on reports from the general public
- Observations are scattered over a large area



Oil sampling







Figur 1 De mottatte prøvene. Fra venstre: Grønnebakke (2022-2965), Sverige (2022-3877) og Kvernskjær (2022-3878).

Tabell 2 Fysikalske analyser av oljeprøvene.

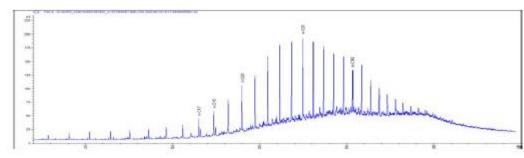
SINTEF ID		Density at 15.6 °C	Viscosity at 10 °C (mPa s)		Water content
		kg/L	10 s ⁻¹	100 s ⁻¹	%
2022-2965	Grønnebakke	0.941	61953	5265	8
2022-3877	Sverige				
2022-3878	Kvernskjær				10



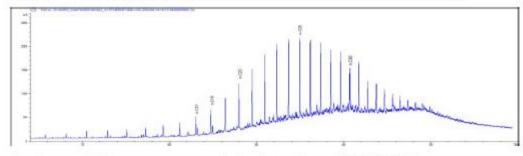


Oil sampling

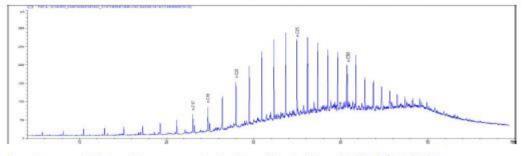




Figur 2 GC-kromatogram av prøve fra Grønnebakke tatt 20.april, 2022 (2022-2965).



Figur 3 GC-kromatogram av prøve fra Sverige tatt 5.may, 2022 (2022-3877)



Figur 4 GC-kromatogram av prøve fra Kvernskjær tatt 5.mai, 2022 (2022-3878)

Tabell 3 Diagnostiske forhåndstall fra GC/FID.

		n-C17/Pristane	n-C18/Phytane	Pristane/Phytane
2022-2965	Grønnebakke	2.34	2.57	0.84
2022-3877	Sweden	2.24	2.59	0.91
2022-3878	Kvernskjær	2.24	2.62	0.89





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