REPORT

NOA Krafla, Environmental Site Investigation Report. Near Shore – Årskog

CLIENT

Aker BP

SUBJECT

Environmental Site Investigation Report. Near shore - Årskog

DATE: / REVISION: October 15, 2021 / 01

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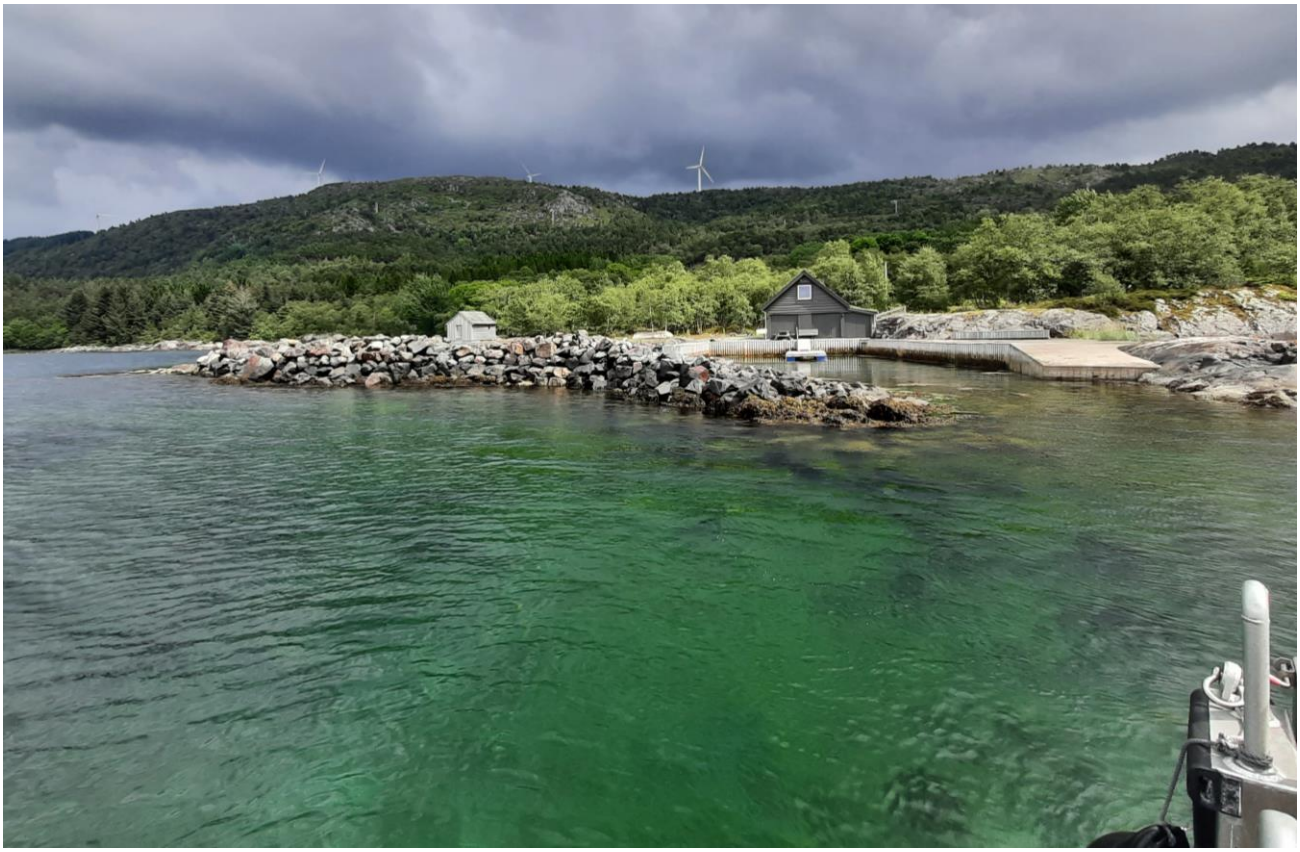

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REPORT

PROJECT	NOA Krafla Power from shore	DOCUMENT CODE	10221656-05-RIGm-REP-002
SUBJECT	**Environmental Site Investigation Report. Near Shore – Årskog**	ACCESSIBILITY	Open
CLIENT	Aker BP	PROJECT MANAGER	Trond Haug
CONTACT	Dines Haslund	PREPARED BY	Lars Tveit Christiansen
		RESPONSIBLE UNIT	Multiconsult Norge AS

SUMMARY

Multiconsult has carried out an environmental near-shore site investigation on behalf of Aker BP for the "power from shore" feasibility and concept study in Samnanger and Årskog.

Multiconsult performed environmental near-shore investigations in Årskog in July 2021, where the main objective was to provide necessary information regarding the condition and contamination situation of the seabed to improve cost estimates for establishing landfall at the site and further planning. This report presents the results from environmental site investigations at near shore at Leirpollen 1 and Leirpollen 2 at Årskog in Fitjar Municipality

The investigation has included sampling of the top sediments (1-5 cm) in one station at Leirpollen 1 and three stations at Leirpollen 2. Due to coarse material, no material was collected in two of the stations at Leirpollen 1. In total four samples were sent to an external laboratory for chemical analyses of eight inorganic compounds (As, Cd, Cu, Cr, Hg, Ni, Pb, Zn), and the organic compounds PAH16, PCB7, and TBT.

The results from the environmental survey at Leirpollen 1 show that the sediments mainly consist of coarse shell sand and gravel. In Leirpollen 2 the sediments consist of coarse and fine sand and organic material. The content of total organic carbon (TOC) is 0.3 % in sample MPR-Å-1 in Leirpollen 1, and 0.6 – 1.6 % in the samples from Leirpollen 2.

The chemical analyses results show no contamination above Tier 1 limit values in any of the two investigation areas and both sites are therefore considered clean. The highest concentration correspond to condition class II (good) for several polycyclic aromatic hydrocarbon compounds one sample station in Leirpollen 2.

A landfall is planned in the investigated site area. Contaminated sediments are not detected, nevertheless a notification with a description of Due to the detection of contaminated sediments, an application for permission to the planned work and this Environmental Site Investigation Report must be sent to the County Governor of Hordaland for their evaluation.

01	15.10.2021	Issued for information	Lars Christiansen	A. Wyspianska	THa
REV.	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

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1 Introduction

Multiconsult has carried out an environmental near-shore site investigation on behalf of Aker BP for the "Power from shore" feasibility and concept study in Samnanger and Årskog.

Aker BP and Equinor is planning for full electrification of the new oil field NOA Krafla. The field is located between Oseberg and Alvheim in the North Sea. The current plans for the development consist of processing platforms in the south of the area and an unmanned platform in the north. Several minor platforms and subsea installations will ensure that all resources in the area are covered.

Multiconsult has been contracted by Aker BP to perform studies for landfalls, substations and on shore power lines for various cases:

- Sjovika: Power from Gismarvik (Tysvær) by overhead line and sea cable to Sjovika (Karmøy).
- Samnanger: Power from Børdalen (Samnanger) by transmission line to substation at Barmen and Ospeviki (Samnanger) and intermediate landfall at Leirpollneset (Fitjar)
- Utsira: Power from Gismarvik (Tysvær) by sea cable to Utsira.

This report presents the results from environmental site investigations at near shore at Leirpollen 1 and Leirpollen 2 at Årskog in Fitjar Municipality. The scope of work covered by this report comprises of factual presentations of data acquisition, processing, and presentation of data from the executed soil investigations and laboratory analyses.

1.1 Objective

The main objective of the environmental site investigation is to provide the necessary information regarding the condition and contamination situation of the seabed to improve cost estimates for establishing landfall at the site and further planning. Contaminated sediment will impact how dredging and backfill will be performed. It will also set the foundation for mitigating measures required to limit or prevent risk of spread of contamination during construction.

1.2 Limitations

Multiconsult has prepared this report for the sole and exclusive use of Aker BP in response to specific agreements. Other parties using the information contained in this report do so at their own risk and any duty of care to those parties is excluded. The information presented in this report is based on information provided by Aker BP, the top sediment conditions encountered with sediment sampling, together with the results of the laboratory test results. Multiconsult assumes that information provided by third parties is reliable but assumes no responsibility for the accuracy of this information.

Multiconsult assumes no responsibility for conditions which have not been revealed by the sediment sampling, or which occur between the investigated locations

2 Site Description

The localities Leirpollen 1 and Leirpollen 2 are located on the east side of Fitjarvika and north of the industrial site at Årskog (see Figure 2-1 and Figure 2-2). Both areas have a north-eastward orientation and faces Fitjarvika.

The industrial area at Årskog was established in 1982. There have been several activities in the area, among other things boatels, garages, offices, and storages. Activities near the sea and more related to this site investigation are sandblasting of boats and the land-based aquaculture facility.

On the shore east of Leirpollen 1 and 2 is an old farmland and a few boat houses.

Figure 2-1: Overview map of the investigated site (www.norgeskart.no). The red lines indicate the investigated areas.

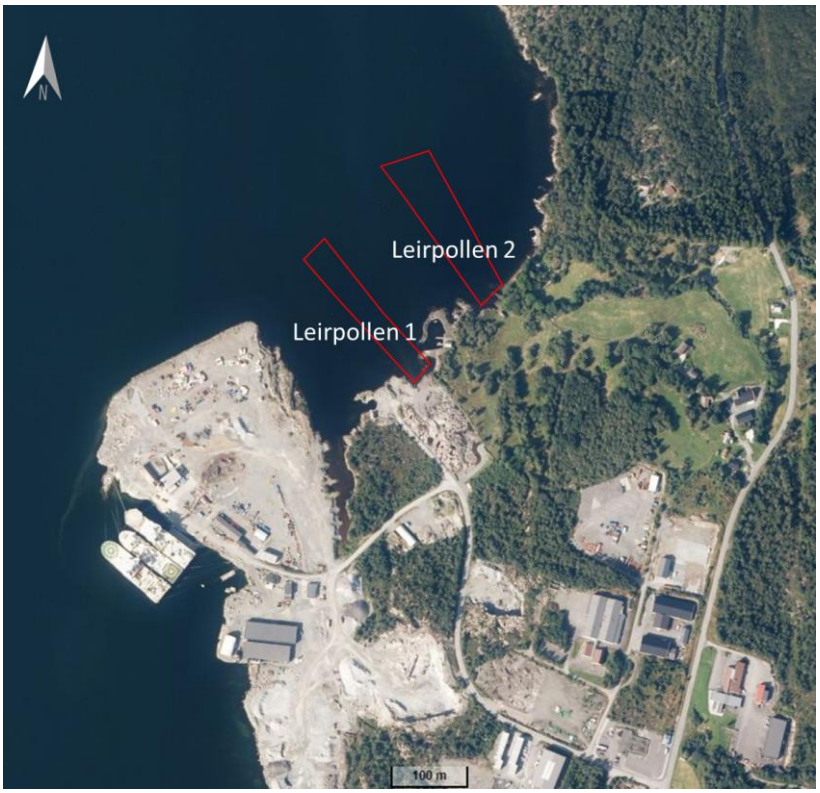


Figure 2-2 Aerial photo of the industrial site at Årskog, Fitjar Municipality and the investigation site (www.norgeskart.no).

2.1 Biodiversity

Fitjarvika (0260010502-C) is classified with good ecological condition. The point sources of pollution from industry and aquaculture and diffuse run-off from wastewater and industry are impacts on the recipient (www.vann-nett.no).

According to The Norwegian Environmental Agency's "Naturbase Kart" the area around the localities is registered as a locally important spawning ground for cod. There are no important nature types, nor marine or terrestrial in the neighborhood (www.kart.naturbase.no).

3 Executed Investigations

3.1 Previous Investigations

In connection with Lerøy Vest AS's planned land-based fish farm at Årskog 0.5 km southwest of Leirpollneset, an environmental site survey was performed by Norconsult in 2020[1]. Sediment samples were collected from six stations, in elevations from -5 to -17 and analyzed for contamination. Based on the results, Multiconsult prepared an application for measures at sea[2]. No concentrations over tier 1 limit values (according to the guideline M-409|2015 *Guideline for risk assessment of contaminated sediments* published by The Norwegian Environment Agency) was detected. Concentrations of Cadmium and the PAH-compound benzo(ghi)perylene corresponding to condition class II (good) for sediments were detected in one sample. Otherwise, the results show concentrations corresponding to condition class I or below quantification limit in all samples.

Multiconsult has previously performed geotechnical soil investigations at the northern and southern landfall. 28th of April 2021, Multiconsult performed an On-site inspection of the landfall (see 10221656-03-RIG-REP-005). The results from the site investigation show in general between 0.6–8.4 m of sediments above bedrock at Leirpollen 1 and between 0.5–3.6 m sediments above bedrock at Leirpollen 2. The sediments in Leirpollen 1 consist of a soft top layer with thickness between 0.5 and 3.8 m. In Leirpollen 2 the soft layer has a maximum thickness of 2.3 m. Above bedrock there is in general a firm layer of assumed moraine.

3.2 Site Investigations

The environmental sediment sampling was carried out on 8th July 2021 from boat under the command of skipper Stian Veseth. The sediments were collected with a van Veen-grab, executed by environmental geologists Ingeborg Solvang and Lars Tveit Christiansen from Multiconsult.

Samples were collected from the upper 1–5 cm of the sea bottom from 19 m depth and towards the shore. There was a total of 6 sampling stations, 3 at Leirpollen 1 and 3 at Leirpollen 2. Four to seven grab throws were executed at all sampling locations Due to less than 10 cm of material inn all grab samples, material was collected with a hand shovel from the grab and mixed into one composite sample from each station. All samples were visually described, bagged in air- and diffusion tight bags, and frozen until they were sent to an accreted laboratory for chemical analysis.

[1] Norconsult (2020). Miljøteknisk sedimentundersøkelse – Årskog. Rapport nr. 5206422-RIM-01, versjon D01, datert 19. oktober 2020.
[2] Multiconsult notat nr. 10220983-01-RIGm-NOT-001, datert 28.05.2021. Årskog Landbasert oppdrett. Planlagte arbeider i sjø. Vedlegg til søknad om tiltak.

Leirpollen 1

The environmental site investigation included sediment sampling in 3 stations (MPR-Å-1, MPR-Å-2 and MPR-S-3) at water depths 3, 6.3, and 12 m respectively. However, due to little or no fine sediments on the sea bottom, no sediment was collected in MPR-Å-2 and MPR-S-3. The total area of the site at Leirpollen 1 was approximately 6 800 m^2.

Leirpollen 2

At Leirpollen 2, samples were collected in 3 stations (MPR-Å-4, MPR-Å-5, and MPR-Å-6) at water depths 3.5, 13, and 19 m respectively. The total area of Leirpollen 2 was approximately 10 000 m^2.

Sampling positions on sea were identified using a GPS-equipment of model Raymarine Axiom 9 with position service SBAS, which gives an accuracy of +/- 5 m in the XYZ directions. Seabed elevations are adjusted for tidal variations with reference to NN2000.

Sampling and analysis are carried out according to procedures given in guidelines from the Norwegian Environmental Agency[3,4], and Norwegian standard for sampling on marine sediments[5], as well as internal Multiconsult procedures.

3.3 Laboratory Investigations

One sample from Leirpollen 1 and three samples from Leirpollen 2 were sent to ALS Laboratory Group Norway AS for chemical analyses of polycyclic aromatic hydrocarbons (ΣPAH_{16}), polychlorinated biphenyls (ΣPCB_7), tributyltin (TBT), and the inorganic compounds arsenic (As), lead (Pb), cadmium (Cd), chromium (Cr), copper (Cu), mercury (Hg), nickel (Ni) and zinc (Zn). In addition, the content of dry matter, total organic carbon (TOC), and fines (< 2 µm and < 63 µm) were determined. The analysis program is specified according to recommendations in the Norwegian Environmental Agency's guideline M-350|2015.

4 Results

The positions and results of the environmental sampling stations is presented at drawing 10221656-05-RIGm-TEG-003 and Figure 4-1.

[3] The Norwegian Environmental Agency, 2015, *Guidance on the handling of sediments, M-350|2015*
[4] The Norwegian Environmental Agency, 2015, *Guidance on the risk assessment of polluted sediments, M-409|2015*
[5] NS-EN ISO 5667-19, *Guidance on sampling in marine sediments*

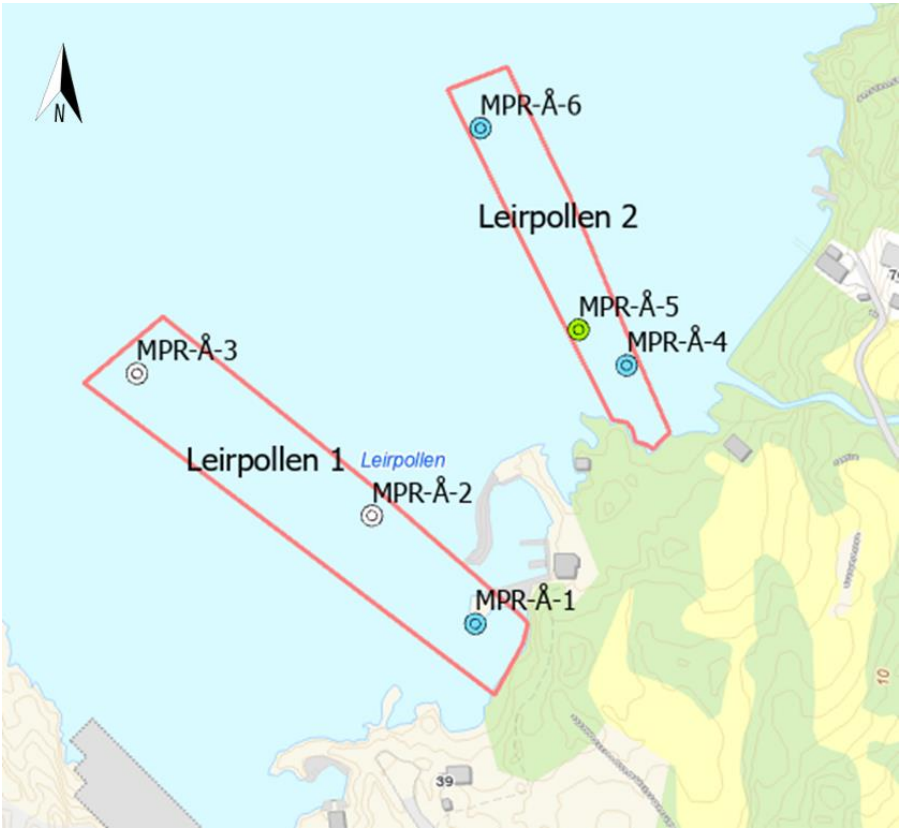


Figure 4-1: Positions and results of the samples from Leirpollen 1 and 2 in Fitjar Municipality. The colour of the samples corresponds to the condition classes described in Table 4-3.

4.1 Sediment Condition and Field Observations

Leirpollen 1

The result of sampling in Leirpollen 1 showed coarse shell sand and gravel in MPR-Å-1 (figure 4-2). This was the only sampling station where it was any material in the grab. Due to coarse material and vegetation, no sediment was collected in the grab in MRP-Å-2 or MRP-Å-3, 6 and 7 grab throws at the stations respectively.

Leirpollen 2

The results of sampling in Leirpollen 2 showed mixture of coarse and fine sand with varying content of shells and organic material in the sediments. The sediments had a dark grey colour (Figure 4-2).

Table 4-1: Field observations from the environmental sampling.

Sample	Time (hh:mm)	Water depth (m)	Elevation (NN2000)	Observations
Leirpollen 1				
MPR-Å-1	14:20	3,0	-3,3	Shell sand, gravel.
MPR-Å-2	14:10	6,3	-6,6	No material in the grab.
MPR-Å-3	14:00	12,0	-12,3	Four throws and no material in the grab. ROV observes only large boulders and vegetaion (macroalgae).
Leirpollen 2				
MPR-Å-4	13:50	3,5	-3,7	Coarse and fine sand.
MPR-Å-5	13:15	13,0	-13,1	Fine sand, organic material, shells and silt fractions.
MPR-Å-6	13:00	19,0	-19,1	Sand, silt and organic material.

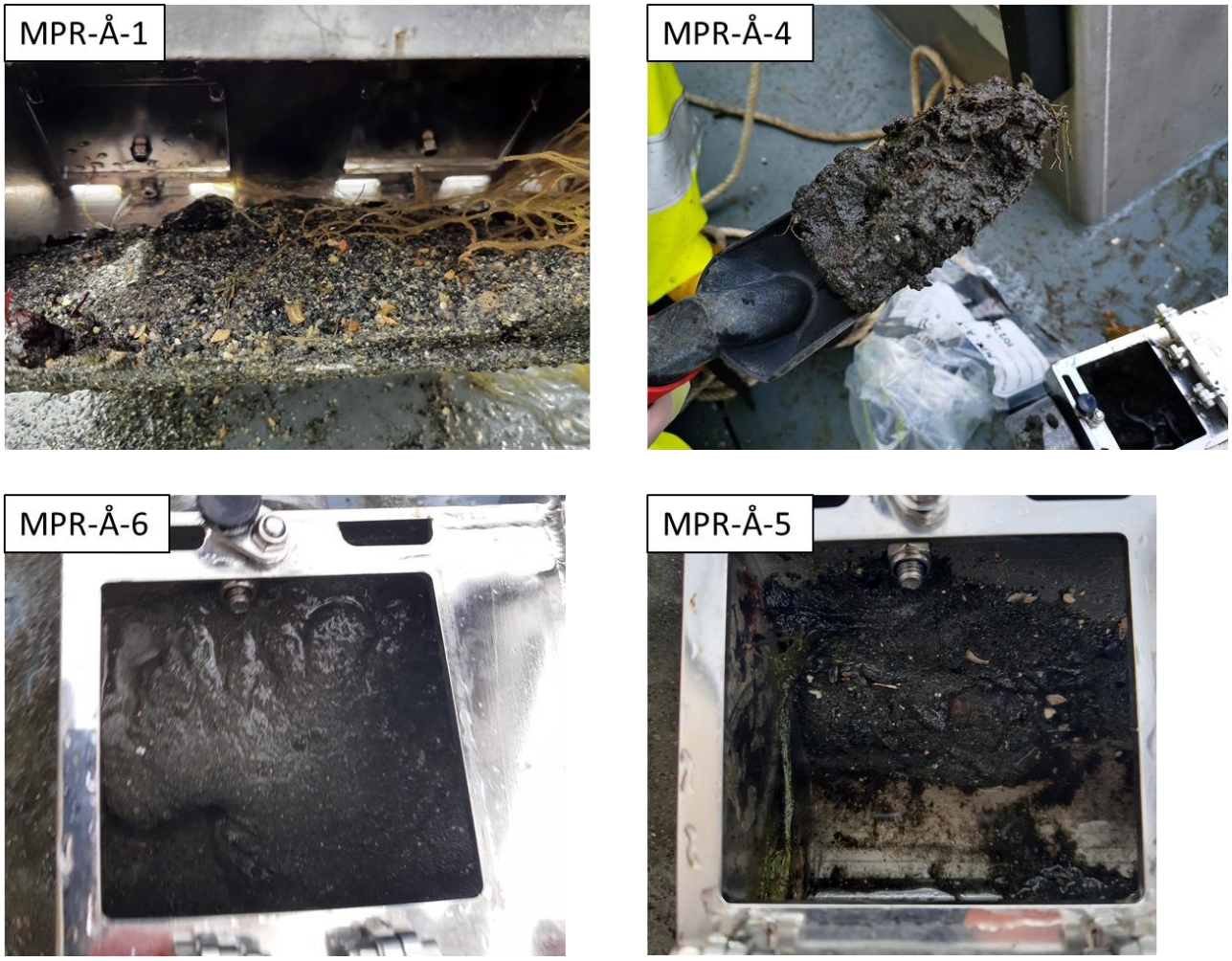


Figure 4-2: Photos of samples from MPR-Å-1 and MPR-Å-4 – MPR-Å-6, representing the seabed sediments in the investigated area. The sediments in MPR-Å-1 in Leirpollen 1 had a light grey colour and had more coarse grained material than the sediments in Leirpollen 2. The sediments in MPR-Å-4 had a high content of organic material. MPR-Å-5 contained parts of broken shells in addition to sand and gravel. The sediments in MPR-Å-6 consisted of mainly fine sand.

The laboratory results show a 100 % content of sand in MPR-Å-4 in Leirpollen 2. Otherwise samples from Leirpollen 1 shows a slightly greater content of sand than the rest of the samples from Leirpollen 2. Likewise, the samples MPR-Å-5 and MPR-Å-6 shows a greater content of fines. The content of clay (<2 µm) is below 1 % in both areas.

The content of total organic carbon (TOC) is 0.3 % in sample MPR-Å-1 in Leirpollen 1, and 0.6 – 1.6 % in the samples from Leirpollen 2. (Table 4-1).

Tabell 4-1: Results of dry matter, fines, clay and total organic carbon

Sample	Dry matter	Sand (>63 µm)	Grain size 2-63 µm (silt)	Grain size < 2 µm (clay)	TOC
	%				% DM
Leirpollen 2					
MPR-Å-1	87.5	99.1	0.8	<0.1	0.26
Leirpollen 1					
MPR-Å-4	81.5	100	<0.1	<0.1	n.a.
MPR-Å-5	71	95.8	4.2	<0.1	1.61
MPR-Å-6	81.5	94.1	5.9	<0.1	0.61

4.2 Chemical Analyses of Sediments

The analytical results are presented in Table 4-4. The complete laboratory report with detection limits and methods can be found in enclosure A. The results have been classified according to The Norwegian Environment Agency's guideline M-608|2016 *Quality standards for water, sediments, and biota*. The classification system grades sediments according to five classes for environmental condition, from background levels to very poor environmental condition depending on the contamination level. The associated colour coding for the condition classes are given in Table 4-3. The results are also compared to risk assessment tier 1 limit values given in the guideline M-409|2015 *Guidelines for risk assessment of contaminated sediments* published by the Norwegian Environment Agency.

There are no condition classes for $\sum PAH_{16}$ in M-608|2016. According to the Norwegian Environment Agency the limit values given in TA-2229|2007 *Classification of condition for contaminated sites* should be used. In addition, there are only given effect-based condition classes for TBT. Also, here The Norwegian Environment Agency has recommended to use the administrative condition classes given in TA-2229|2007.

Table 4-2: Environmental condition classes given in M-608|2016

I Background	II Good	III Moderate	IV Poor	V Very poor
Background levels	No toxic effects	Chronical effects with long time exposure	Immediate toxic effects with short time exposure	Extensive immediate toxic effect

Tabell 4-4: Results from the chemical analysis classified in environmental condition classes according to the guideline M-608|2016 rev2020. The concentrations are also compared to tier 1 quality values from guideline M-409|2015

ELEMENT	SAMPLE	Leirpollen 1	Leirpollen 2			Risk assessment, Tier 1
		MPR-Å-1	MPR-Å-4	MPR-Å-5	MPR-Å-6	
As (Arsenic)	mg/kg TS	1	2	1	<0,5	18
Pb (Lead)	mg/kg TS	1	3	5	3	150
Cu (Copper)	mg/kg TS	1	1	4	2	84
Cr (Chrome)	mg/kg TS	9	10	8	8	620
Cd (Cadmium)	mg/kg TS	<0.1	<0.1	<0.1	<0.1	2.5
Hg (Mercury)	mg/kg TS	<0.2	<0.2	<0.2	<0.2	0.52
Ni (Nickel)	mg/kg TS	3	3	4	3	42
Zn (Zinc)	mg/kg TS	18	19	26	15	139
Naphthalene	µg/kg TS	<10[1]	<12[1]	<10[1]	<10[1]	27
Acenaphthylene	µg/kg TS	<10[1]	<10[1]	<10[1]	<10[1]	33
Acenaphthen	µg/kg TS	<10[1]	<10[1]	<10[1]	<10[1]	96
Fluoren	µg/kg TS	<10[1]	<10[1]	<10[1]	<10[1]	150
Phenanthrene	µg/kg TS	<10[1]	<15[1]	<10[1]	<10[1]	780
Anthracene	µg/kg TS	<4[1]	<29[2]	<4[1]	<4[1]	4.8
Fluoranthene	µg/kg TS	<10[1]	<10[1]	22	<10[1]	400
Pyrene	µg/kg TS	<10[1]	<10[1]	19	<10[1]	84
Benzo(a)anthracene^	µg/kg TS	<10[1]	<10[1]	12	<10[1]	60
Chrysene^	µg/kg TS	<10[1]	<10[1]	13	<10[1]	280
Benzo(b+j)fluoranthene^	µg/kg TS	10	<10	15	<10	140
Benzo(k)fluoranthene^	µg/kg TS	<10	<10	12	<10	135
Benzo(a)pyren^	µg/kg TS	<10[1]	<10[1]	12	<10[1]	183
Dibenso(ah)anthracene^	µg/kg TS	<10	<10	<10	<10	27
Benzo(ghi)perylene	µg/kg TS	<10	<10	<10	<10	84
Indeno(123cd)pyrene^	µg/kg TS	18	<10	10	<10	63
Sum PAH-16	µg/kg TS	<77	<93	115	<77	2000
Sum PCB-7	µg/kg TS	<2[1]	<2[1]	<2[1]	<2[1]	4.1
Tributyltin cation	µg/kg TS	<1	n.a.	<1	<1	35

< = less than the detection limit
n.a. = not analysed
[1] Light green colour represents concentrations that is below detection limit, and where detection limit is higher than the limit value between II and I. The sample is there for classified as II even if the concentration might as well could be I.
[2] Detection limit is higher than limit value between class II and III. Samples where concentrations above 10 µg/kg are not detected, are not classified, because it is not known if the actual concentration is class I, II or III.

4.3 Description of Contamination levels

Except of TBT (Tributyltin cation), the Tier 1 limit values correspond to the upper limit of class II (good). The Tier 1 limit value for TBT lies in class III (moderate).

Leirpollen 1

In MPR-Å-5, at Leirpollen 1, concentrations of polycyclic aromatic hydrocarbons (PAH) were detected corresponding to condition class II (good). However, sum PAH_{16} correspond to condition class I (very good). Several of the analyzed PAH-compounds have a higher detection limit than the limit value between condition class I and II. These compounds are thus classified as condition class II, although concentrations may as well be condition class I (background).

Leirpollen 2

In sample MPR-Å-1 from Leirpollen 2, most analyzed compounds correspond to condition class I (very good). Several of the analyzed PAH-compounds have a higher detection limit than the limit value between condition class I and II. These compounds are thus classified as condition class II, although concentrations may as well be condition class I (background).

No compounds either in Leirpollen 1 nor Leirpollen 2 shows concentrations above Tier 1 limit value. Both sites can therefore be considered clean.

4.4 Evaluation of the Data Quality

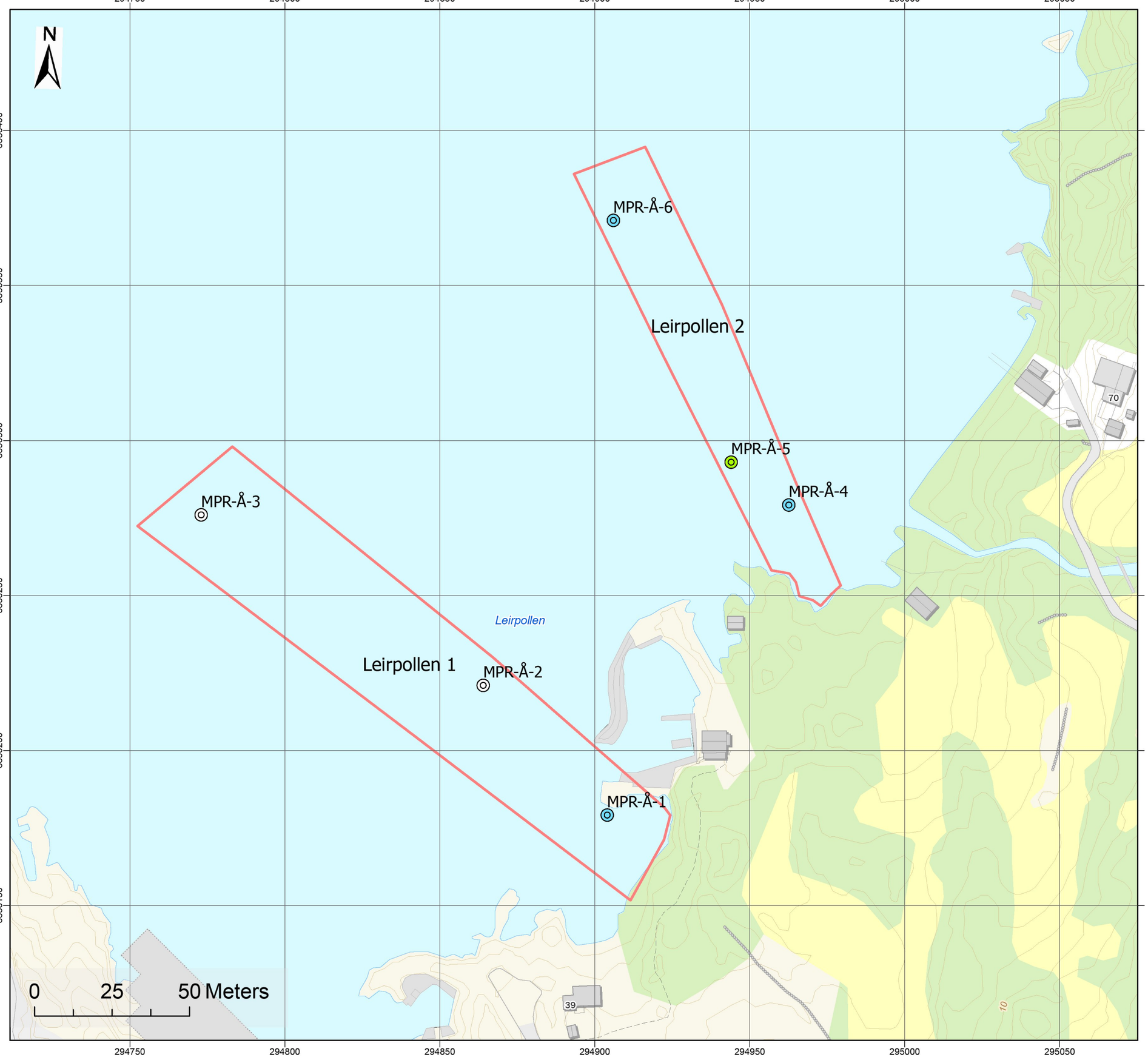
The investigated site on Leirpollen 1 comprises an area of approximately 6 800 m2, where the total area has water depths less than 20 m. Leirpollen 2 comprises an area of approximately 3 400 m2. Also, here the investigated area has a water depth below 20 m. The guideline M-409|2015 requires at least 5 sampling stations from an investigation area, where each station can only represent a maximum area of 10 000 m2 for water depths less than 20 m and up to 40 000 m2 for water depths over 20 m. This survey includes four samples from a total area of 12 500 m2 and water depth less than 20 m, and so the number of samples is considered sufficient. It is assumed that the environmental sampling from the four stations is representative for the sediments in the whole site area at Leirpollen.

The sediments at Leirpollen 2 consist mainly of coarse sand with little fine-grained material. In Leirpollen 1 the content of fine material is higher, except in one sample (MPR-Å-4). The executed survey is expected to give a good overview of the contamination level of the seabed sediments in the investigated area, but the investigation is based on spot sampling, and higher concentrations within the site area cannot be ruled out.

5 Conclusion

All concentrations in Leirpollen 1 are within condition class I (background). In Leirpollen 2, highest concentration level is condition class II (good). No contamination above tier 1 limit values are found in the samples from either one of the sample stations and both areas can therefore be considered clean.

A landfall is planned in the investigated site area. Contaminated sediments are not detected, nevertheless a notification with a description of the planned work and this Environmental Site Investigation Report must be sent to the County Governor of Hordaland for their evaluation.



Legend

- Investigation site
- Not analysed
- Condition class 1/Norm values
- Condition class 2 - Good
- Condition class 3 - Moderate
- Condition class 4 - poor
- Condition class 5 - Very poor

CLASSIFICATION FOR HEAVY METALS, ALIPHATIC COMPOUNDS, THC, BENZENE, PAH, AND PCB. CLASSIFIED IN ACCORDANCE WITH GUIDELINE TA-2553/2009.

Coordinate system: ETRS 1989 UTM Zone 32N

Description: PLAN OF ENVIRONMENTAL SEDIMENT SAMPLING		Format: A3	Speciality RIGm
		Date: 15.10.2021	
AKER BP NOA KRAFLA - POWER FROM SHORE Environmental site survey - Fitjar			Grunnlag: Kartverket, Geovekst, kommuner og OSM - Geodata AS
			Scale: 1:1 200
Multiconsult	Proj. no. 10221656-05	Status: / Constr. LTC / Contr. ADW / Approved THa	
		Dwg no. RIGm-TEG-003	Rev. 0

ANALYSERAPPORT

Ordrenummer	: **NO2111525**	Side	: 1 av 16
Kunde	: **Multiconsult Norge AS**	Prosjekt	: NOKKA Power from shore
Kontakt	: Silje Marie Vasstein	Prosjektnummer	: 10221656-05
Adresse	: Postboks 198 Skøyen 0213 Oslo Norge	Prøvetaker Sted Dato prøvemottak	: ---- : ---- : 2021-07-12 10:45
Epost	: silje.marie.vasstein@multiconsult.no	Analysedato	: 2021-07-15
Telefon	: ----	Dokumentdato	: 2021-07-30 13:36
COC nummer	: ----	Antall prøver mottatt	: 9
Tilbuds- nummer	: OF180420	Antall prøver til analyse	: 9

Om rapporten

Forklaring til resultatene er gitt på slutten av rapporten.
Denne rapporten erstatter enhver foreløpig rapport med denne referansen. Resultater gjelder innleverte prøver slik de var ved innleveringstidspunktet. Alle sider på rapporten har blitt kontrollert og godkjent før utsendelse.

Denne rapporten får kun gjengis i sin helhet, om ikke utførende laboratorium på forhånd har skriftlig godkjent annet. Resultater gjelder bare de analyserte prøvene.

Hvis prøvetakingstidspunktet ikke er angitt, prøvetakingstidspunktet vil bli default 00:00 på prøvetakingsdatoen. Hvis datoen ikke er angitt, blir default dato satt til dato for prøvemottak angitt i klammer uten tidspunkt.

Kommentarer

Prøve(r) NO2111525/001,009, metode S-SMIGMS01- Rapporteringense økt på grunn av matriksinterferens.
Prøver NO2111525/002-006,008, metode S-METAXAC - syreoppløsning ble brukt på originalt våtmateriale.
Prøver NO2111525/007, metode S-METAXAC - syreoppløsning ble brukt på originalt våtmateriale.
Prøven for metod S-TOC1-IR er tørket ved 105 grader og pulverisert før analyse.

Underskrivere	*Posisjon*
Torgeir Rødsand	DAGLIG LEDER

Laboratorium	: ALS Laboratory Group avd. Oslo	Nettside	: www.alsglobal.no
Adresse	: Drammensveien 264 0283 Oslo Norge	Epost Telefon	: info.on@alsglobal.com : ----

Analyseresultater

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-A-4						
	Prøvenummer lab	NO2111525001						
	Kundes prøvetakingsdato	2021-07-08 00:00						
Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Tørrstoff								
Tørrstoff ved 105 grader	**81.5**	± 4.92	%	0.10	2021-07-28	S-DRY-GRCI	PR	a ulev
Polysykliske hydrokarboner (PAH)								
Sum andre PAH (M1)	<0.058	----	mg/kg TS	0.045	2021-07-27	S-SMIGMS01	PR	a ulev
Totale elementer/metaller								
As (Arsen)	**1.88**	± 0.38	mg/kg TS	0.50	2021-07-28	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-28	S-METAXAC1	PR	a ulev
Cr (Krom)	**10.0**	± 2.01	mg/kg TS	0.25	2021-07-28	S-METAXAC1	PR	a ulev
Cu (Kopper)	**1.41**	± 0.28	mg/kg TS	0.10	2021-07-28	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-28	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**2.9**	± 0.60	mg/kg TS	1.0	2021-07-28	S-METAXAC1	PR	a ulev
Pb (Bly)	**3.4**	± 0.70	mg/kg TS	1.0	2021-07-28	S-METAXAC1	PR	a ulev
Zn (Sink)	**19.4**	± 3.90	mg/kg TS	5.0	2021-07-28	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-27	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<12	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Fenantren	<15	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Antracen	<29	----	µg/kg TS	4	2021-07-27	S-SMIGMS01	PR	a ulev
Fluoranten	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Pyren	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev

Submatriks: **SEDIMENT**

	MPR-A-4
Kundes prøvenavn	
Prøvenummer lab	*NO2111525001*
Kundes prøvetakingsdato	*2021-07-08 00:00*

Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Polyaromatiske hydrokarboner (PAH) - Fortsetter								
Indeno(123cd)pyren^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	<93	----	µg/kg TS	80	2021-07-27	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	<35	----	µg/kg TS	35	2021-07-27	S-SMIGMS01	PR	a ulev
Fysikalsk								
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev
Silt (2-63 µm)	<0.1	----	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev
Sand (> 63 µm)	**100**	± 10.00	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev

Submatriks: **SEDIMENT**

	MPR-A-1
Kundes prøvenavn	
Prøvenummer lab	*NO2111525002*
Kundes prøvetakingsdato	*2021-07-08 00:00*

Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Tørrstoff								
Tørrstoff ved 105 grader	**87.5**	± 5.28	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**0.52**	± 0.10	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**9.35**	± 1.87	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**1.30**	± 0.26	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**2.7**	± 0.50	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**1.3**	± 0.30	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**18.1**	± 3.60	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fenantren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	Prøvenummer lab	Kundes prøvetakingsdato
	MPR-A-1	NO2111525002	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Polyaromatiske hydrokarboner (PAH) - Fortsetter								
Pyren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	<77	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	<35	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Fraksjon < 0,002 mm	<0.01	----	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,002-0,004 mm	**0.02**	± 0.002	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,004-0,008 mm	**0.06**	± 0.006	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,008-0,016 mm	**0.16**	± 0.02	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Silt (2-63 µm)	**0.8**	± 0.08	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,016-0,032 mm	**0.27**	± 0.03	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Sand (> 63 µm)	**99.1**	± 9.90	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,032-0,063 mm	**0.29**	± 0.03	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,063-0,125 mm	**0.91**	± 0.09	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,125-0,25 mm	**4.04**	± 0.40	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,25-0,5 mm	**13.0**	± 1.30	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,5-1 mm	**48.0**	± 4.80	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 1-2 mm	**27.9**	± 2.79	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon >2 mm	**5.30**	± 0.53	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**0.26**	± 0.05	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	Prøvenummer lab	Kundes prøvetakingsdato
	MPR-A-5	NO2111525003	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Tørrstoff								
Tørrstoff ved 105 grader	**71.0**	± 4.29	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-A-5
	Prøvenummer lab	NO2111525003
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Prøvepreparering - Fortsetter								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**1.38**	± 0.28	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**8.20**	± 1.64	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**4.17**	± 0.83	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**3.5**	± 0.70	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**5.3**	± 1.10	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**25.8**	± 5.20	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fenantren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	**22**	± 6.66	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	**19**	± 5.66	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	**12**	± 3.49	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	**13**	± 3.85	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	**15**	± 4.64	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	**12**	± 3.69	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	**12**	± 3.58	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	**10**	± 3.11	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	**115**	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	**74**	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev

Submatriks: **SEDIMENT**

	MPR-A-5
Kundes prøvenavn	
Prøvenummer lab	*NO2111525003*
Kundes prøvetakingsdato	*2021-07-08 00:00*

Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Organometaller - Fortsetter								
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Silt (2-63 µm)	**4.2**	± 0.40	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Sand (> 63 µm)	**95.8**	± 9.60	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**1.61**	± 0.24	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	MPR-A-6
Kundes prøvenavn	
Prøvenummer lab	*NO2111525004*
Kundes prøvetakingsdato	*2021-07-08 00:00*

Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Tørrstoff								
Tørrstoff ved 105 grader	**81.5**	± 4.92	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	<0.50	----	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**7.90**	± 1.58	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**1.84**	± 0.37	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**3.1**	± 0.60	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**3.4**	± 0.70	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**14.8**	± 3.00	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fenantren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev

Submatriks: **SEDIMENT**

	MPR-A-6							
Kundes prøvenavn								
Prøvenummer lab	NO2111525004							
Kundes prøvetakingsdato	2021-07-08 00:00							
Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Polyaromatiske hydrokarboner (PAH) - Fortsetter								
Fluoranten	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	<77	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	<35	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Fraksjon < 0,002 mm	**0.02**	± 0.002	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,002-0,004 mm	**0.16**	± 0.02	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,004-0,008 mm	**0.54**	± 0.05	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,008-0,016 mm	**1.11**	± 0.11	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Silt (2-63 µm)	**5.9**	± 0.60	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,016-0,032 mm	**1.59**	± 0.16	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Sand (> 63 µm)	**94.1**	± 9.40	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,032-0,063 mm	**2.41**	± 0.24	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,063-0,125 mm	**18.0**	± 1.80	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,125-0,25 mm	**39.9**	± 3.99	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,25-0,5 mm	**24.2**	± 2.42	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,5-1 mm	**10.9**	± 1.09	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 1-2 mm	**0.11**	± 0.01	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon >2 mm	**0.99**	± 0.10	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**0.61**	± 0.09	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	MPR-S-4							
Kundes prøvenavn								
Prøvenummer lab	NO2111525005							
Kundes prøvetakingsdato	2021-07-08 00:00							
Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Tørrstoff								

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-4						
	Prøvenummer lab	NO2111525005						
	Kundes prøvetakingsdato	2021-07-08 00:00						
Parameter	**Resultat**	MU	*Enhet*	*LOR*	*Analysedato*	*Metode*	*Utf. lab*	*Acc.Key*
Tørrstoff - Fortsetter								
Tørrstoff ved 105 grader	**58.2**	± 3.52	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**4.22**	± 0.84	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**17.9**	± 3.59	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**11.8**	± 2.36	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**14.0**	± 2.80	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**13.3**	± 2.60	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**40.5**	± 8.10	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fenantren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	**21**	± 6.43	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	**12**	± 3.54	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	**14**	± 4.38	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	**15**	± 4.61	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	**62**	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	**48**	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-4
	Prøvenummer lab	NO2111525005
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Organometaller - Fortsetter								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Silt (2-63 µm)	**11.2**	± 1.10	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Sand (> 63 µm)	**88.8**	± 8.90	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**4.23**	± 0.64	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-5
	Prøvenummer lab	NO2111525006
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Tørrstoff								
Tørrstoff ved 105 grader	**79.8**	± 4.82	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**2.73**	± 0.55	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**15.6**	± 3.12	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**3.89**	± 0.78	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**10.0**	± 2.00	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**5.4**	± 1.10	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**31.0**	± 6.20	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-5
	Prøvenummer lab	NO2111525006
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Polyaromatiske hydrokarboner (PAH) - Fortsetter								
Fenantren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	<77	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	<35	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Fraksjon < 0,002 mm	**0.02**	± 0.002	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,002-0,004 mm	**0.11**	± 0.01	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,004-0,008 mm	**0.33**	± 0.03	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,008-0,016 mm	**0.64**	± 0.06	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Silt (2-63 µm)	**4.0**	± 0.40	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,016-0,032 mm	**1.04**	± 0.10	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Sand (> 63 µm)	**96.0**	± 9.60	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,032-0,063 mm	**1.58**	± 0.16	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,063-0,125 mm	**14.2**	± 1.42	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,125-0,25 mm	**30.1**	± 3.01	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,25-0,5 mm	**23.3**	± 2.33	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,5-1 mm	**16.6**	± 1.66	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 1-2 mm	**5.57**	± 0.56	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon >2 mm	**6.50**	± 0.65	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**0.62**	± 0.10	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-2
	Prøvenummer lab	NO2111525007
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Tørrstoff								
Tørrstoff ved 105 grader	**78.7**	± 4.75	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**4.01**	± 0.80	mg/kg TS	0.50	2021-07-21	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-21	S-METAXAC1	PR	a ulev
Cr (Krom)	**26.3**	± 5.27	mg/kg TS	0.25	2021-07-21	S-METAXAC1	PR	a ulev
Cu (Kopper)	**6.53**	± 1.31	mg/kg TS	0.10	2021-07-21	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-21	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**16.3**	± 3.30	mg/kg TS	1.0	2021-07-21	S-METAXAC1	PR	a ulev
Pb (Bly)	**9.1**	± 1.80	mg/kg TS	1.0	2021-07-21	S-METAXAC1	PR	a ulev
Zn (Sink)	**41.6**	± 8.30	mg/kg TS	5.0	2021-07-21	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	**49**	± 14.60	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	**41**	± 12.20	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fenantren	**410**	± 123.00	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	**110**	± 33.10	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	**550**	± 165.00	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	**445**	± 134.00	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	**231**	± 69.30	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	**251**	± 75.20	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	**198**	± 59.40	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	**202**	± 60.70	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	**231**	± 69.30	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	**26**	± 7.66	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	**139**	± 41.70	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	**163**	± 49.00	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	**3050**	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	**1300**	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-2
	Prøvenummer lab	NO2111525007
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Organometaller - Fortsetter								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Silt (2-63 µm)	**2.2**	± 0.20	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Sand (> 63 µm)	**97.8**	± 9.80	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**1.07**	± 0.16	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-1
	Prøvenummer lab	NO2111525008
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Tørrstoff								
Tørrstoff ved 105 grader	**81.8**	± 4.94	%	0.10	2021-07-21	S-DRY-GRCI	PR	a ulev
Prøvepreparering								
Ekstraksjon	**Yes**	----	-	-	2021-07-15	S-P46	LE	a ulev
Totale elementer/metaller								
As (Arsen)	**1.93**	± 0.38	mg/kg TS	0.50	2021-07-22	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Cr (Krom)	**24.8**	± 4.97	mg/kg TS	0.25	2021-07-22	S-METAXAC1	PR	a ulev
Cu (Kopper)	**5.54**	± 1.11	mg/kg TS	0.10	2021-07-22	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-22	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**13.6**	± 2.70	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Pb (Bly)	**5.7**	± 1.10	mg/kg TS	1.0	2021-07-22	S-METAXAC1	PR	a ulev
Zn (Sink)	**31.0**	± 6.20	mg/kg TS	5.0	2021-07-22	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-22	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-1
	Prøvenummer lab	NO2111525008
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Polyaromatiske hydrokarboner (PAH) - Fortsetter								
Fenantren	**13**	± 4.01	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Antracen	<4	----	µg/kg TS	4	2021-07-22	S-SMIGMS01	PR	a ulev
Fluoranten	**36**	± 10.80	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Pyren	**31**	± 9.21	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	**19**	± 5.65	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Krysen^	**21**	± 6.38	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	**29**	± 8.79	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	**25**	± 7.64	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	**22**	± 6.55	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	**24**	± 7.22	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	**23**	± 7.00	µg/kg TS	10	2021-07-22	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	**243**	----	µg/kg TS	80	2021-07-22	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	**139**	----	µg/kg TS	35	2021-07-22	S-SMIGMS01	PR	a ulev
Organometaller								
Monobutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Dibutyltinn	<1	----	µg/kg TS	1	2021-07-15	S-GC-46	LE	a ulev
Tributyltinn	<1	----	µg/kg TS	1.0	2021-07-15	S-GC-46	LE	a ulev
Fysikalsk								
Fraksjon < 0,002 mm	<0.01	----	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,002-0,004 mm	**0.03**	± 0.003	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,004-0,008 mm	**0.09**	± 0.009	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,008-0,016 mm	**0.20**	± 0.02	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Silt (2-63 µm)	**1.7**	± 0.20	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,016-0,032 mm	**0.40**	± 0.04	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Sand (> 63 µm)	**98.3**	± 9.80	%	0.1	2021-07-23	S-TEXT-ANL	CS	a ulev
Fraksjon 0,032-0,063 mm	**0.46**	± 0.05	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,063-0,125 mm	**2.48**	± 0.25	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,125-0,25 mm	**12.1**	± 1.21	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,25-0,5 mm	**22.0**	± 2.20	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 0,5-1 mm	**18.8**	± 1.88	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon 1-2 mm	**14.2**	± 1.42	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Fraksjon >2 mm	**29.2**	± 2.92	%	0.01	2021-07-23	S-GSAT-GR	CS	a ulev
Andre analyser								
Totalt organisk karbon (TOC)	**0.36**	± 0.06	% tørrvekt	0.10	2021-07-22	S-TOC1-IR	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	MPR-S-6
	Prøvenummer lab	NO2111525009
	Kundes prøvetakingsdato	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Tørrstoff								
Tørrstoff ved 105 grader	**69.0**	± 4.17	%	0.10	2021-07-28	S-DRY-GRCI	PR	a ulev
Totale elementer/metaller								
As (Arsen)	**2.19**	± 0.44	mg/kg TS	0.50	2021-07-28	S-METAXAC1	PR	a ulev
Cd (Kadmium)	<0.10	----	mg/kg TS	0.10	2021-07-28	S-METAXAC1	PR	a ulev
Cr (Krom)	**10.2**	± 2.04	mg/kg TS	0.25	2021-07-28	S-METAXAC1	PR	a ulev
Cu (Kopper)	**4.29**	± 0.86	mg/kg TS	0.10	2021-07-28	S-METAXAC1	PR	a ulev
Hg (Kvikksølv)	<0.20	----	mg/kg TS	0.20	2021-07-28	S-METAXAC1	PR	a ulev
Ni (Nikkel)	**6.3**	± 1.20	mg/kg TS	1.0	2021-07-28	S-METAXAC1	PR	a ulev
Pb (Bly)	**6.0**	± 1.20	mg/kg TS	1.0	2021-07-28	S-METAXAC1	PR	a ulev
Zn (Sink)	**19.0**	± 3.80	mg/kg TS	5.0	2021-07-28	S-METAXAC1	PR	a ulev
PCB								
PCB 28	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 52	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 101	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 118	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 138	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 153	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
PCB 180	<0.00070	----	mg/kg TS	0.00070	2021-07-27	S-SMIGMS01	PR	a ulev
Sum PCB-7	<0.00245	----	mg/kg TS	0.00245	2021-07-27	S-SMIGMS01	PR	a ulev
Polyaromatiske hydrokarboner (PAH)								
Naftalen	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Acenaftylen	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Acenaften	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Fluoren	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Fenantren	<12	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Antracen	<12	----	µg/kg TS	4	2021-07-27	S-SMIGMS01	PR	a ulev
Fluoranten	**10**	± 3.14	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Pyren	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(a)antracen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Krysen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(b)fluoranten^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(k)fluoranten^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(a)pyren^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Dibenso(ah)antracen^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Benso(ghi)perylen	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Indeno(123cd)pyren^	<10	----	µg/kg TS	10	2021-07-27	S-SMIGMS01	PR	a ulev
Sum of 16 PAH (M1)	**10**	----	µg/kg TS	80	2021-07-27	S-SMIGMS01	PR	a ulev
Sum PAH carcinogene^	<35	----	µg/kg TS	35	2021-07-27	S-SMIGMS01	PR	a ulev
Fysikalsk								
Kornstørrelse <2 µm	<0.1	----	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev
Silt (2-63 µm)	**4.5**	± 0.40	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev

Submatriks: **SEDIMENT**

	Kundes prøvenavn	Prøvenummer lab	Kundes prøvetakingsdato
	MPR-S-6	NO2111525009	2021-07-08 00:00

Parameter	Resultat	MU	Enhet	LOR	Analysedato	Metode	Utf. lab	Acc.Key
Fysikalsk - Fortsetter								
Sand (> 63 µm)	**95.5**	± 9.50	%	0.1	2021-07-30	S-TEXT-ANL	CS	a ulev

Dette er slutten av analyseresultatdelen av analysesertifikatet

Kort oppsummering av metoder

Analysemetoder	Metodebeskrivelser
S-GC-46	SS-EN ISO 23161:2011
S-P46	SS-EN ISO 23161:2011, ALS method 46
S-GSAT-GR	CZ_SOP_D06_07_120 (BS ISO 11277:2009) Kornstørrelsesanalyse av faste prøver ved bruk av sikting og laserdiffraksjon
S-TEXT-ANL	CZ_SOP_D06_07_120 (BS ISO 11277:2009) Kornstørrelsesanalyse av faste prøver ved bruk av sikting og laserdiffraksjon
S-TOC1-IR	CZ_SOP_D06_07_121.A (CSN ISO 29541, CSN EN ISO 16994, CSN EN ISO 16948, CSN EN 15407, CSN ISO 19579, CSN EN 15408, CSN ISO 10694, CSN EN 13137) Bestemmelse av totalt karbon (TC), totalt organisk karbon (TOC), total svovel og hydrogen ved forbrenningsmetode ved bruk av IR,-bestemmelse av total nitrogen ved forbrenningsmetode ved bruk av TCD og bestemmelse av oksygen ved utregning og totalt uorganisk karbon (TIC) og karbonater ved utregning fra målte verdier.
S-DRY-GRCI	CZ_SOP_D06_01_045 (CSN ISO 11465, CSN EN 12880, CSN EN 14346), CZ_SOP_D06_07_046 (CSN ISO 11465, CSN EN 12880, CSN EN 14346, CSN 46 5735) Bestemmelse av tørrstoff gravimetrisk og bestemmelse av vanninnhold ved utregning fra målte verdier.
S-METAXAC1	CZ_SOP_D06_02_001 (US EPA 200.7, ISO 11885, US EPA 6010, SM 3120, prøver opparbeidet i henhold til CZ_SOP_D06_02_J02 (US EPA 3050, CSN EN 13657, ISO 11466) kap. 10.3 to 10.16, 10.17.5, 10.17.6, 10.17.9 to 10.17.14), Bestemmelse av elementer ved AES med ICP og støkiometriske utregninger av konsentrasjonen til aktuelle forbindelser fra målte verdier. Prøven ble homogenisert og mineralisert med salpetersyre i autoklav under høyt trykk og temperatur før analyse.
S-SMIGMS01	CZ_SOP_D06_03_181 (US EPA 429, US EPA 1668, US EPA 3550) Bestemmelse av SVOC ved isotopfortynning ved bruk av GC-metode med MS-deteksjon og kalkulering av semi-sum VOC fra målte verdier

Prepareringsmetoder	Metodebeskrivelser
*S-PPHOM.07	CZ_SOP_D06_07_P01 Prøvepreparering av faste prøver for analyse (knusing, kverning og pulverisering).
*S-PPHOM0.3	CZ_SOP_D06_07_P01 Prøvepreparering av faste prøver for analyse (knusing, kverning og pulverisering).

Noter:

LOR = Rapporteringsgrenser representerer standard rapporteringsgrenser for de respektive parameterne for hver metode. Merk at rapporteringsgrensen kan bli påvirket av f.eks nødvendig fortynning grunnet matriksinterferens eller ved for lite prøvemateriale

MU = Måleusikkerhet

a = A etter utøvende laboratorium angir akkreditert analyse gjort av ALS Laboratory Norway AS

a ulev = A ulev etter utøvende laboratorium angir akkreditert analyse gjort av underleverandør

* = Stjerne før resultat angir ikke-akkreditert analyse.

< betyr mindre enn

> betyr mer enn

n.a. – ikke aktuelt

n.d. – Ikke påvist

Måleusikkerhet:

Måleusikkerhet skal være tilgjengelig for akkrediterte metoder. For visse analyser der dette ikke oppgis i rapporten, vil dette oppgis ved henvendelse til laboratoriet.

Måleusikkerheten angis som en utvidet måleusikkerhet (etter definisjon i "Evaluation of measurement data - Guide to the expression of uncertainty in measurement", JCGM 100:2008 Corrected version 2010) beregnet med en dekningsfaktor på 2 noe som gir et konfidensinterval på om lag 95%.

Måleusikkerhet fra underleverandører angis ofte som en utvidet usikkerhet beregnet med dekningsfaktor 2. For ytterligere informasjon, kontakt laboratoriet.

Utførende lab

	Utførende lab
CS	*Analysene er utført av:* ALS Czech Republic, s.r.o., Bendlova 1687/7 Ceska Lipa 470 01
LE	*Analysene er utført av:* ALS Scandinavia AB Luleå, Aurorum 10 Luleå Sverige 977 75
PR	*Analysene er utført av:* ALS Czech Republic, s.r.o., Na Harfe 336/9 Prague 9 - Vysocany 190 00