2022 - Aker BP CDP 2022 Climate Change Questionnaire Attachments

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Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*AKER BP ASA ALVHEIM*
Name of Installation:	*Alvheim - kvoter*
Address of Installation:	Kontinentalsokkelen
Unique ID:	Verifikasjonsid.2021.0265
GHG Permit Number:	2013.0338.T
Date(s) of relevant approved MP and period of validity for each plan:	version13 dated 14.01.2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2021*
Reference document:	*2021-miljodir-0000.0030.02-Utkast*
Date of Emissions Report:	15.03.2022
Process Emissions in tCO2e:	***0***
Combustion Emissions in tCO2e:	***210551.55***
Total Emissions in tCO2e:	**210552**
Combustion Source Streams:	Fuel gas, Flare gas, Diesel and Urea Values verified are: Fuel gas: 79181868 Sm3; Flare gas: 3525123 Sm3; Diesel for source stream 3: 2150.15 tonn; Diesel for source stream 4: 4985,6 tonn; Urea 159.4 tonn
Process Source Streams:	N/A
Methodology used:	*Calculation methodology* *For source stream 1, 2, 3 and 4:* *CO2 Emissions = Activity Data * Lower Calorific Value * Emission Factor * Oxidation Factor* *For source stream 5:* *CO2 Emissions = Activity Data * Emission Factor*
Emissions factors used:	Fuel gas: by analysis; Flare gas: by CMR calculations; and Diesel: standard factor. The values used are: Fuel gas: 57.368557 tonn CO2/TJ and 0,000039454 TJ/Sm3 Flare gas: 58.26395 tonn CO2/TJ and 0,000041911 TJ/Sm3 Diesel: 73,5 tonn CO2/TJ and 0,0431 TJ/tonn Urea: 0,7328 tonn CO2/tonn Miljødirektoratet tool for checking the CMR model has also been provided with the CMR model by Aker BP and verified by DNV as per Miljødirektoratet's guidelines.
Changes to the Operator/ installation during the reporting year:	*N/A*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	No
Date(s) of visit(s):	31.01.2022 (virtual)
Number of days on-site:	1
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Rafi Khawaja
AVR Article 31 and 32: Justification for not undertaking site visit	NA
AVR Article 34a: Justification for conducting a virtual site visit	Force majeure. Based on DNV risk assessment a virtual verification audit was performed on Teams. Documents and data was shared on Teams and responsible persons were interviewed on Teams or Teams on mobile (as needed).
Date of written approval from Competent Authority for waive of site visit:	14. Dec 2021

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes
COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….
	Yes

Control activities are documented, implemented, maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	Yes
Procedures listed in monitoring plan are documented, implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	Yes
Data verification: (EU ETS AVR Article 16)	Yes
Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
	Yes, for the periods with missing gas samples for fuel gas, a conservative estimate is used. Refer to NORCE Technical Note dated 21.02.2022.
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	Yes
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes

Comparability over time:	Yes
Transparency:	Yes
Integrity of methodology:	Yes
Continuous improvement:	No, no improvements identified as required.

OPINION	
OPINION - verified as satisfactory:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated.
VERIFICATION TEAM	
Lead EU ETS Auditor:	Rafi Khawaja
EU ETS Auditor(s):	-
Technical Expert(s) (EU ETS Auditor):	-
Independent Reviewer:	Ole Andreas Flagstad
Technical Expert(s) (Independent Review):	

Signed on behalf of DNV Business Assurance Norway AS :	*Ole A. Flagstad on behalf of,* *DNV Business Assurance Norway AS*
Name of authorised signatory:	
Date of Opinion:	*24.03.2022*

Name of verifier:	*DNV Business Assurance Norway AS*
Contact Address:	*P.O.Box 300, 1363 Høvik, Norway* *ets.certification@dnv.com*
Date of verification contract:	*09.12.2021*
Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering-NA*
Accreditation/ Certification number:	*ETS-001*

AKER BP ASA ALVHEIM

Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation	N/A	-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation	N/A	-- select --
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation	N/A	-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --
C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	N/A
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E.	**Scheme:**	**Prior year Non-conformities that have NOT been resolved.** **Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.**
E1	EU ETS Installation	NA
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	Yes
If Yes, was this approved by the competent authority before completion of the verification?	No
If Yes, did the number of flights with data gaps exceed 5% of the annual reported flights?	-- select --
If No, -	
- was the method used conservative (If No, please provide more details)	Yes
- did the method lead to a material misstatement (If Yes, please provide more details)	No

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority. • the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.
	GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Verification Opinion - Emissions Trading System
EU ETS Annual Reporting

AKER BP ASA ALVHEIM

Annex 3 - Summary of conditions / changes/ clarification / variations

A) approved by the Competent Authority but which have NOT been incorporated within a re-issued Permit/ Monitoring Plan at completion of verification

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

B) identified by the verifier and which have NOT been reported by 31 December of the reporting year

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*AKER BP ASA IVAR AASEN*
Name of Installation:	*Ivar Aasen - kvoter*
Address of Installation:	Kontinentalsokkelen
Unique ID:	NO000000000207708
GHG Permit Number:	2015.0401.T
Date(s) of relevant approved MP and period of validity for each plan:	Version 11 dated 14.02.2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2021*
Reference document:	*2021-miljodir-0000.0120.01-Utkast* *Verifikasjonsid.2021.0321*
Date of Emissions Report:	20.03.2022
Process Emissions in tCO2e:	***0***
Combustion Emissions in tCO2e:	***19851,29***
Total Emissions in tCO2e:	**19851**
Combustion Source Streams:	Flare gas,Diesel, and Urea. Values verified are: Flare gas source stream 1: 4195145 Sm3 (excluding cold vent and nitrogen); Diesel platfrom source stream 2: 1986 tonn; Diesel mobile rig source stream 3: 855 tonn, and Urea: 17,6 tonn
Process Source Streams:	N/A
Methodology used:	*Calculation methodology* *For source stream 1, 2 and 3:* *CO2 Emissions = Activity Data * Lower Calorific Value * Emission Factor * Oxidation Factor* *For source stream 4:* *CO2 Emissions = Activity Data * Emission Factor*
Emissions factors used:	Flare gas: by CMR calculations; Diesel and Urea: standard factor. The values used are: Flare gas: 58,9 tonn CO2/TJ and 0,000043864 tonn CO2/TJ Diesel: 73,5 tonn CO2/TJ and 0,0431 TJ/tonn Urea: 0,7328 tonn CO2/tonn
Changes to the Operator/ installation during the reporting year:	*N/A*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	No
Date(s) of visit(s):	01. - 02. Feb 2022 (virtual)
Number of days on-site:	1
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Rafi Khawaja
AVR Article 31 and 32: Justification for not undertaking site visit	NA
AVR Article 34a: Justification for conducting a virtual site visit	Force majeure. Based on DNV risk assessment a virtual verification audit was performed on Teams. Documents and data was shared on Teams and responsible persons were interviewed on Teams or Teams on mobile (as needed).
Date of written approval from Competent Authority for waive of site visit:	14. Dec 2021

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes
COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….
	Yes
Control activities are documented, implemented,	Yes

maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	
Procedures listed in monitoring plan are documented, implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	Yes
Data verification: (EU ETS AVR Article 16)	Yes
Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
	No missing data, but methods verified.
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	N/A
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes

Comparability over time:	Yes
Transparency:	Yes
Integrity of methodology:	Yes
Continuous improvement:	No, no improvements identified as required.

OPINION	
OPINION - verified as satisfactory:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated.
VERIFICATION TEAM	
Lead EU ETS Auditor:	Rafi Khawaja
EU ETS Auditor(s):	-
Technical Expert(s) (EU ETS Auditor):	-
Independent Reviewer:	Ole Andreas Flagstad
Technical Expert(s) (Independent Review):	

Signed on behalf of DNV Business Assurance Norway AS :	*Ole Andreas Flagstad on behalf of,* *DNV Business Assurance Norway AS*
Name of authorised signatory:	
Date of Opinion:	*27.03.2022*

Name of verifier:	*DNV Business Assurance Norway AS*
Contact Address:	*P.O.Box 300, 1363 Høvik, Norway* *ets.certification@dnv.com*
Date of verification contract:	*12.09.2021*

Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering-NA*
Accreditation/ Certification number:	*ETS-001*

Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation	N/A	-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation		-- select --
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation	N/A	-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --
C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	N/A
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E. **Scheme:** **Prior year Non-conformities that have NOT been resolved.**
Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.

E1	EU ETS Installation	NA
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	No
If Yes, was this approved by the competent authority before completion of the verification?	-- select --
If Yes, did the number of flights with data gaps exceed 5% of the annual reported flights?	-- select --
If No, -	
- was the method used conservative (If No, please provide more details)	-- select --
- did the method lead to a material misstatement (If Yes, please provide more details)	-- select --

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority. • the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.

GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*AKER BP ASA AVD STAVANGER*
Name of Installation:	*Skarv - kvoter*
Address of Installation:	Kontinentalsokkelen
Unique ID:	NO000000000000116 / Verifikasjonsid.2021.0266
GHG Permit Number:	2013.0403.T
Date(s) of relevant approved MP and period of validity for each plan:	version 9 dated 31 January 2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2021*
Reference document:	*2021-miljodir-0000.0090.02-Utkast Verifikasjonsid.2021.0266*
Date of Emissions Report:	15.03.2022
Process Emissions in tCO2e:	***0***
Combustion Emissions in tCO2e:	***335422.72***
Total Emissions in tCO2e:	**335423**
Combustion Source Streams:	The combustion source streams and the values verified are as follows: 1. Fuel gass: 136791152 Sm3; 2. Flare gas - HP-flare: 5206706 Sm3; 3. Flare gas - LP-flare: 691316 Sm3; 4. Diesel - FPSO: 1886.98 tonn 5. Diesel - Mobil rigg: 6640.79 tonn 6. Urea: 125 tonn
Process Source Streams:	N/A
Methodology used:	*Standard calculation based methodology is used:* *For source streams 1, 2, 3, 4 and 5:* *CO2 Emissions = Activity Data * Lower Calorific Value * Emission Factor * Oxidation Factor* *For source stream 6:* *CO2 Emissions = Activity Data * Emission Factor*
Emissions factors used:	For Fuel gas: 57.817758 tonn CO2/TJ and 0.00003716 TJ/Sm3 For HP flare: 57.70773 tonn CO2/TJ and 0.000037938 TJ/Sm3 For LP flare: 63.91125 tonn CO2/TJ and 0.000068351 TJ/Sm3 As per the permit, Lower Calorific Value of 0,0431 TJ/tonn; Emission Factor of 73,5 tonn CO2/TJ; and Oxidation Factor of 1 have been used for diesel. For Ureas value of 0.7328 tonn CO2/tonn was used as per the permit

Changes to the Operator/ installation during the reporting year:	*N/A*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	No
Date(s) of visit(s):	07 February 2022 (virtual)
Number of days on-site:	1
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Rafi Khawaja
AVR Article 31 and 32: Justification for not undertaking site visit	NA
AVR Article 34a: Justification for conducting a virtual site visit	Force majeure. Based on DNV risk assessment a virtual verification audit was performed on Teams. Documents and data was shared on Teams and responsible persons were interviewed on Teams or Teams on mobile (as needed).
Date of written approval from Competent Authority for waive of site visit:	14. Dec 2021

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes
COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….

	Yes
Control activities are documented, implemented, maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	Yes
Procedures listed in monitoring plan are documented, implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	Yes
Data verification: (EU ETS AVR Article 16)	Yes
Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
	No missing data, but control activities to avoid missing data were verified. In addition, any data transfer issues from one system to other have been rectified under verification.
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	Yes
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes

Comparability over time:	Yes
Transparency:	Yes
Integrity of methodology:	Yes
Continuous improvement:	No, no improvements identified as required.

OPINION	
OPINION - verified as satisfactory:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated.
VERIFICATION TEAM	
Lead EU ETS Auditor:	Rafi Khawaja
EU ETS Auditor(s):	-
Technical Expert(s) (EU ETS Auditor):	-
Independent Reviewer:	Ole Andreas Flagstad
Technical Expert(s) (Independent Review):	

Signed on behalf of DNV Business Assurance Norway AS :	*Ole Andreas Flagstad on behalf of,* *DNV Business Assurance Norway AS*
Name of authorised signatory:	
Date of Opinion:	*3/25/2022*

Name of verifier:	*DNV Business Assurance Norway AS*
Contact Address:	*P.O.Box 300, 1363 Høvik, Norway* *ets.certification@dnv.com*
Date of verification contract:	*12.09.2021*
Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering-NA*

Accreditation/ Certification number:	*ETS-001*

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Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation	N/A	-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation	NA	-- select --
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation	N/A	-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --
C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	N/A
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E. **Scheme:** **Prior year Non-conformities that have NOT been resolved.**
Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.

E1	EU ETS Installation	NA
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	No
If Yes, was this approved by the competent authority before completion of the verification?	-- select --
If Yes, did the number of flights with data gaps exceed 5% of the annual reported flights?	-- select --
If No, -	
- was the method used conservative (If No, please provide more details)	-- select --
- did the method lead to a material misstatement (If Yes, please provide more details)	No

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority. • the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.
	GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Verification Opinion - Emissions Trading System
EU ETS Annual Reporting

AKER BP ASA AVD STAVANGER

Annex 3 - Summary of conditions / changes/ clarification / variations

A) approved by the Competent Authority but which have NOT been incorporated within a re-issued Permit/ Monitoring Plan at completion of verification

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

B) identified by the verifier and which have NOT been reported by 31 December of the reporting year

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*AKER BP ASA ULA*
Name of Installation:	*Ula - kvoter*
Address of Installation:	Kontinentalsokkelen
Unique ID:	NO 000000005012215 Verifikasjonsid.2021.0262
GHG Permit Number:	2013.0370.T
Date(s) of relevant approved MP and period of validity for each plan:	version 11 dated 18 January 2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2021*
Reference document:	*2021-miljodir-0000.0039.01-Utkast Verifikasjonsid.2021.0262*
Date of Emissions Report:	15.03.2022
Process Emissions in tCO2e:	***0***
Combustion Emissions in tCO2e:	***208447.86***
Total Emissions in tCO2e:	**208448**
Combustion Source Streams:	The combustion source streams and the values verified are as follows: 1. Fuel gass Generator/Turbine: 48942828,92 tonn; 2. Fuel gass Compressor: 18446393,16 tonn; 3. Flare gas - HP-flare: 1450025 Sm3; 4. Flare gas - LP-flare: 3296250 Sm3; 5. Flare gas - WAG-flare: 328750 Sm3; 6. Flare gas - UGU-flare: 224213,641 Sm3; 7. Diesel: 682,7446 tonn; 11. Flare gas - Pilot: 130382,489 Sm3; 12. Diesel: 1812,258 tonn; and 13. Urea: 40,58 tonn
Process Source Streams:	N/A
Methodology used:	*Standard calculation based methodology is used:* *For source streams 1,2,3,4,5,6,7,11 and 12:* *CO2 Emissions = Activity Data * Lower Calorific Value * Emission Factor * Oxidation Factor* *For source streams 13:* *CO2 Emissions = Activity Data * Emission Factor*

Emissions factors used:	For Fuel gass Generator/Turbine: 42,26 tonn CO2/TJ and 0,000063466 TJ/tonn; For fuel gass Compressor: 59,18258614 tonn CO2/TJ and 0,000044923 TJ/tonn; For Flare gas - HP-flare; Flare gas - LP-flare; Flare gas - WAG-flare; Flare gas - UGU-flare; and Flare gas - Pilot: Lower Calorific Value of 0,0000608 TJ/Sm3; Emission Factor of 61,2 tonn CO2/TJ; and Oxidation Factor of 1; For Diesel: Lower Calorific Value of 0,0431 TJ/tonn; Emission Factor of 73,5 tonn CO2/TJ; and Oxidation Factor of 1; and For Urea: 0,7328 tonn CO2/ tonn
Changes to the Operator/ installation during the reporting year:	*N/A*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	No
Date(s) of visit(s):	03. February 2022 (virtual)
Number of days on-site:	1
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Rafi Khawaja
AVR Article 31 and 32: Justification for not undertaking site visit	NA
AVR Article 34a: Justification for conducting a virtual site visit	Force majeure. Based on DNV risk assessment a virtual verification audit was performed on Teams. Documents and data was shared on Teams and responsible persons were interviewed on Teams or Teams on mobile (as needed).
Date of written approval from Competent Authority for waive of site visit:	14. Dec 2021

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes

COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….
	Yes
Control activities are documented, implemented, maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	No
	Ref. Annex 1 - Findings B1
Procedures listed in monitoring plan are documented, implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	Yes
Data verification: (EU ETS AVR Article 16)	Yes
Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
	The flare data are corrected as per the procedures (for the periods where any errors in the monitored data are detected). DNV GL has verified these corrections. In addition, the periods of discarded samples for fuel gas, missing samples and where the laboratory is not accredited is corrected. These were conservatively estimated as an average value plus 2 times the standard deviation. NORCE report verified.
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	Yes
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes
Comparability over time:	Yes
Transparency:	Yes
Integrity of methodology:	Yes
Continuous improvement:	Yes. See Annex 1 for recommendations.

OPINION	
OPINION - verified with comments:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated, with the exception of:
Comments which qualify the opinion:	*1. Source streams 1 and 2: Orifice plates (FE-8386) and (FE-30173) last check done 2. June 2019 and 05. Dec 2020, respectively. Check not done in 2021 and thus the yearly requirements as per the permit not met.*

VERIFICATION TEAM	
Lead EU ETS Auditor:	Rafi Khawaja
EU ETS Auditor(s):	-
Technical Expert(s) (EU ETS Auditor):	-
Independent Reviewer:	Ole Andreas Flagstad
Technical Expert(s) (Independent Review):	

Signed on behalf of DNV Business Assurance Norway AS :	*Ole Andreas Flagstad on behalf of,* *DNV Business Assurance Norway AS*
Name of authorised signatory:	
Date of Opinion:	*26.03.2022*

Name of verifier:	*DNV Business Assurance Norway AS*
Contact Address:	*P.O.Box 300, 1363 Høvik, Norway* *ets.certification@dnv.com*
Date of verification contract:	*12.09.2021*
Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering-NA*
Accreditation/ Certification number:	*ETS-001*

AKER BP ASA ULA

Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation	N/A	-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation	Source streams 1 and 2: Orifice plates (FE-8386) and (FE-30173) last check done 2. June 2019 and 05. Dec 2020, respectively. Check not done in 2021 and thus the yearly requirements as per the permit not met.	No
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation	N/A	-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --
C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	For HP, LP and WAG flares as per the PEMAC reports from Jan 2022: Transducers are more than 20 years old and original delivery in 1997. It is recommended to consider to replace transducers due to aging and risk for crytralbreakage.
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E.	**Scheme:**	**Prior year Non-conformities that have NOT been resolved.** **Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.**
E1	EU ETS Installation	NA
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	Yes
If Yes, was this approved by the competent authority before completion of the verification?	No
If Yes, did the number of flights with data gaps exceed 5% of the annual reported flights?	-- select --
If No, -	
- was the method used conservative (If No, please provide more details)	Yes
- did the method lead to a material misstatement (If Yes, please provide more details)	No

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority. • the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.
	GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Verification Opinion - Emissions Trading System
EU ETS Annual Reporting

AKER BP ASA ULA

Annex 3 - Summary of conditions / changes/ clarification / variations

A) approved by the Competent Authority but which have NOT been incorporated within a re-issued Permit/ Monitoring Plan at completion of verification

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

B) identified by the verifier and which have NOT been reported by 31 December of the reporting year

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*AKER BP ASA VALHALL*
Name of Installation:	*Valhall- kvoter*
Address of Installation:	Kontinentalsokkelen
Unique ID:	Verifikasjonsid.2021.0270
GHG Permit Number:	2013.0374.T
Date(s) of relevant approved MP and period of validity for each plan:	Version 8 dated 20 January 2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2021*
Reference document:	*2021-miljodir-0000.0019.02-Utkast*
Date of Emissions Report:	15.03.2022
Process Emissions in tCO2e:	***0***
Combustion Emissions in tCO2e:	***28790.87***
Total Emissions in tCO2e:	**28791**
Combustion Source Streams:	The combustion source streams and the values verified are as follows: 5. Diesel: 867,282 tonn 6. Diesel - (Hod): 149,411 tonn 7. Diesel - (mobile rigger): 6000,751 tonn 8. Flare gas - HP-flare: 2114003 Sm3; 9. Flare gas - LP-flare: 277135,4 Sm3; and 10. Urea: 0 tonn for 2021
Process Source Streams:	N/A
Methodology used:	*Standard calculation based methodology is used:* *For source streams 5, 6, 7, 8 and 9:* *CO2 Emissions = Activity Data * Lower Calorific Value * Emission Factor * Oxidation Factor* *For source stream 10:* *CO2 Emissions = Activity Data * Emission Factor*
Emissions factors used:	As per the permit, Lower Calorific Value of 0,0431 TJ/tonn; Emission Factor of 73,5 tonn CO2/TJ; and Oxidation Factor of 1 have been used for diesel. For HP flare: 59,28313 tonn CO2/TJ and 0,000046455 TJ/Sm3 For LP flare: 59,23231 tonn CO2/TJ and 0,000045 TJ/Sm3 Urea: N/A
Changes to the Operator/ installation during the reporting year:	*N/A*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	No
Date(s) of visit(s):	08. - 09. February 2022 (virtual)
Number of days on-site:	1
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Rafi Khawaja
AVR Article 31 and 32: Justification for not undertaking site visit	NA
AVR Article 34a: Justification for conducting a virtual site visit	Force majeure. Based on DNV risk assessment a virtual verification audit was performed on Teams. Documents and data was shared on Teams and responsible persons were interviewed on Teams or Teams on mobile (as needed).
Date of written approval from Competent Authority for waive of site visit:	14. Dec 2021

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes
COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….
	Yes
Control activities are documented, implemented, maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	No
	Ref. Annex 1 B1
Procedures listed in monitoring plan are documented,	Yes

implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	
Data verification: (EU ETS AVR Article 16)	Yes
Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
	The flare data are corrected as per the procedures (for the periods where any errors in the monitored data are detected). DNV has verified these corrections. However, there were no missing data.
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	Yes
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes
Comparability over time:	Yes

Transparency:	Yes
Integrity of methodology:	Yes
Continuous improvement:	No, no improvements identified as required.

OPINION	
OPINION - verified with comments:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated, with the exception of:
Comments which qualify the opinion:	*1. HP/LP Flare: Control and calibration of Temp/Pressure instrumentations last done in 2020. No control and calibration done in 2021. Therefore, this is a non-conformity to the permit requirements.* *Note that the next control planned during shutdown in June 2022.*
VERIFICATION TEAM	
Lead EU ETS Auditor:	Rafi Khawaja
EU ETS Auditor(s):	-
Technical Expert(s) (EU ETS Auditor):	-
Independent Reviewer:	XXX
Technical Expert(s) (Independent Review):	

Signed on behalf of DNV Business Assurance Norway AS :	*XXX on behalf of,* *DNV Business Assurance Norway AS*
Name of authorised signatory:	
Date of Opinion:	*19.03.2022*

Name of verifier:	*DNV Business Assurance Norway AS*
Contact Address:	*P.O.Box 300, 1363 Høvik, Norway* *ets.certification@dnv.com*
Date of verification contract:	*12.09.2021*
Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering-NA*
Accreditation/ Certification number:	*ETS-001*

AKER BP ASA VALHALL

Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation	N/A	-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation	HP/LP Flare: Control and calibration of Temp/Pressure instrumentations last done in 2020. No control and calibration done in 2021. Therefore, this is a non-conformity to the permit requirements. Note that the next control planned during shutdown in June 2022.	No
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation	N/A	-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --
C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	N/A
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E. **Scheme:** **Prior year Non-conformities that have NOT been resolved.**
Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.

E1	EU ETS Installation	NA
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	No
If Yes, was this approved by the competent authority before completion of the verification?	-- select --
If Yes, did the number of flights with data gaps exceed 5% of the annual reported flights?	-- select --
If No, -	
- was the method used conservative (If No, please provide more details)	-- select --
- did the method lead to a material misstatement (If Yes, please provide more details)	-- select --

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority. • the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.
	GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Verification Opinion - Emissions Trading System
EU ETS Annual Reporting

AKER BP ASA VALHALL

Annex 3 - Summary of conditions / changes/ clarification / variations

A) approved by the Competent Authority but which have NOT been incorporated within a re-issued Permit/ Monitoring Plan at completion of verification

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

B) identified by the verifier and which have NOT been reported by 31 December of the reporting year

	Scheme:	
1	EU ETS Installation	NA
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

VERIFICATION STATEMENT

Statement no:	Valid from:	Valid to:
2022-0702	June 13, 2022	N/A

Aker BP ASA

Verification of the Exploration drilling - Scope1 and PSV - Scope3 GHG emission footprint for 2021 year for Aker BP

DNV Business Assurance Norway AS (DNV) was commissioned by Aker BP ASA (Aker BP) to provide limited assurance verification on the information described below and set out in the CDP reporting to the Climate Change Program values for the year ended 31 December 2021.

The purpose of this document is to clarify matters set out in the process of verifying CO_2 emissions for selected Aker BP's operations. We do not accept or assume any responsibility or liability on our part to any party who may have access to this letter or related documents.

1. **Boundaries of the reporting** company covered by the assurance report and any known exclusions.

The scope of our work was limited to assurance over the 2021 GHG emission figures for Aker BP:
- Scope 1 CO2 emissions (ref. CDP report point C 6.1) for Exploration drilling
- Scope 3 CO2 emissions (ref. CDP report point C 6.5) for PSV

2. **Emissions data verified** - broken down by Scope 1 and Scope 3 categories with figures given; option to include other relevant data that has been verified with figures.

The GHG aggregated emissions data for Aker BP (Selected Information) is presented on the table below:

Scopes [tCO2e]	2021
Scope 1: Data as reported in C 6.1. Total CO2-e scope 1 emissions	17 646, 00
Scope 3: Data as reported in C 6.5. CO2-e scope 3 emissions	56 639, 00

Aker BP reports Scope 1 for the following activities: Fuel- and Energy-Related Activities, namely Diesel fuel use of the exploration wells Liatårnet, Mgunetind, Stangnestind, Lyderhorn, Frøy grunn gass, Langfjellet, Fulla, King Lear.
Aker BP reports Scope 3 for the following activities: PSVs.

Other emissions have not been part of the verification scope and hence have not been verified by DNV.

3. **Period included in the verification**: 01 January 2021 to 31 December 2021.

4. **Verification standard used**: ISO 14064-3:2019

5. **Assurance opinion** (incl. level of assurance and any qualifications). Level of assurance: Limited

The verification was conducted between 02nd June 2022 and 13th June 2022, during which Aker BP ASA provided its GHG calculations in "Dieselforbruk leteboring 2021_AkerBP_DNV_Check_summary added_final.xlsx" and "2019, 2020 og 2021.xlsx".

DNV has performed the verification with the following approach:
- A review of the consolidation process

- Review of procedures for collection of activity data and emissions factors and calculations including routines for data quality management
- Review of calculation methods, emission source references and the other document evidence
- Interviews with key personnel through calls (MS Teams)
- Spot checks and detailed review of reporting process and documentation
- Closing out reported Non-compliances and clarifications

Based on the procedures DNV has performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 December 2021 has not been prepared, in all material respects, in accordance with the Reporting Criteria. This conclusion is to be read in the context of what we say in the remainder of our report.

6. Verification provider and any relevant accreditations:

DNV Business Assurance Norway AS

7. Lead verifier name and any relevant accreditations/professional membership

Lead verifier: Rafi-ud-Din Khawaja
Technical Reviewer: Dmitry Sukhinin

Place and date: Høvik, June 13, 2022
DNV Business Assurance Norway AS



Rafi-ud-Din Khawaja
Lead verifier



Dmitry Sukhinin
Technical reviewer

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System

EU ETS Annual Reporting

OPERATOR DETAILS	
Name of Operator:	*Lundin Norway AS*
Name of Installation:	*Edvard Grieg*
Address of Installation:	Kontinentalsokkelen
Unique ID:	0000.0112.01
GHG Permit Number:	2014.0326.T
Date(s) of relevant approved MP and period of validity for each plan:	Versjonnr: 11, 18. januar 2022
Approving Competent Authority:	Miljødirektoratet
Category:	B
Is the installation a 'low emitter'?	*No*
Annex 1 Activity:	*Combustion*

EMISSIONS DETAILS	
Reporting Year:	*2022*
Reference document:	*2021-miljodir-0000.0112.01*
Date of Emissions Report:	24.02.2022
Process Emissions in tCO2e:	
Combustion Emissions in tCO2e:	***302 378***
Total Emissions in tCO2e:	**302 378**
Combustion Source Streams:	HP-/LP-fakkelgass, brenngass, urea og diesel
Process Source Streams:	
Methodology used:	*Beregning*
Emissions factors used:	Kildestrøm 1,3 og 7: standardfaktorer Kildestrøm 4, 5: 2b simulert/beregnet Kildestrøm 6: Prøvetaking og analyse
Changes to the Operator/ installation during the reporting year:	*No*

SITE VERIFICATION DETAILS	
Operator/ Installation visited during verification:	Yes

Date(s) of visit(s):	22-23.11.21 og 07.12.22
Number of days on-site:	3
Name of EU ETS (lead) auditor(s)/ technical experts undertaking site visit(s):	Håvard Sørheim
AVR Article 31 and 32: Justification for not undertaking site visit	
AVR Article 34a: Justification for conducting a virtual site visit	
Date of written approval from Competent Authority for waive of site visit:	

COMPLIANCE WITH EU ETS RULES FOR EU ETS tCO2 DECLARED ABOVE	
Monitoring Plan requirements met:	Yes
Permit conditions met:	Yes
EU Regulation on M&R met:	Yes
COMPLIANCE WITH EU REGULATION ON A&V	
Data verified in detail and back to source: (EU ETS AVR Article 14 & Article 16(2)(g))	Yes
	If yes, was this part of site verification….
	Yes
Control activities are documented, implemented, maintained and effective to mitigate the inherent risks: (EU ETS AVR Article 14(b))	Yes
Procedures listed in monitoring plan are documented, implemented, maintained and effective to mitigate the inherent risks and control risks: (EU ETS AVR Article 14(c))	Yes
Data verification: (EU ETS AVR Article 16)	Yes

Correct application of monitoring methodology: (EU ETS AVR Article 17)	Yes
Verification of methods applied for missing data: (EU ETS AVR Article 18)	Yes
Uncertainty assessment: (EU ETS AVR Article 19)	Yes
Competent Authority (Annex 2) guidance on M&R met:	Yes
Previous year Non-Conformity(ies) corrected:	Yes
Changes etc. identified and not reported to the Competent Authority/included in updated MP:	N/A

COMPLIANCE WITH THE MONITORING AND REPORTING PRINCIPLES	
Accuracy:	Yes
Completeness:	Yes
Consistency:	Yes
Comparability over time:	Yes
Transparency:	Yes
Integrity of methodology:	Yes

Continuous improvement:	

OPINION	
OPINION - verified as satisfactory:	We have conducted a verification of the greenhouse gas data reported by the above Operator in its Annual Emissions Report as presented above. On the basis of the verification work undertaken (see Annex 2) these data are fairly stated.
VERIFICATION TEAM	
Lead EU ETS Auditor:	Håvard Sørheim
EU ETS Auditor(s):	
Technical Expert(s) (EU ETS Auditor):	
Independent Reviewer:	Dag Remi Reitan
Technical Expert(s) (Independent Review):	

Signed on behalf of Ecoxy AS:	
Name of authorised signatory:	*Håvard Sørheim*
Date of Opinion:	*08.03.2022*

Name of verifier:	*Ecoxy AS*
Contact Address:	*Sorgenfriveien 9, 7037 Trondheim. post@ecoxy.no*
Date of verification contract:	*16.09.2022*
Is the verifier accredited or a certified natural person?	Accredited
Name of National AB or authority certifying the verifier:	*Norsk Akkreditering*
Accreditation/ Certification number:	*ETS 002*

Edvard Grieg

Annex 1A - Misstatements, Non-conformities, Non-compliances and Recommended Improvements

A.	**Scheme:**	**Uncorrected Misstatements that were not corrected before issuance of the verification report**	**Material?**
A1	EU ETS Installation		-- select --
A2	-- select --		-- select --
A3	-- select --		-- select --
A4	-- select --		-- select --
A5	-- select --		-- select --
A6	-- select --		-- select --
A7	-- select --		-- select --
A8	-- select --		-- select --
A9	-- select --		-- select --
A10	-- select --		-- select --

B.	**Scheme:**	**Uncorrected Non-conformities with approved Monitoring Plan** *including discrepancies between approved plan and actual sources, source streams and boundaries etc identified during verification*	**Material?**
B1	EU ETS Installation		-- select --
B2	-- select --		-- select --
B3	-- select --		-- select --
B4	-- select --		-- select --
B5	-- select --		-- select --
B6	-- select --		-- select --
B7	-- select --		-- select --
B8	-- select --		-- select --
B9	-- select --		-- select --
B10	-- select --		-- select --

C.	**Scheme:**	**Uncorrected Non-compliances with MRR which were identified during verification**	**Material?**
C1	EU ETS Installation		-- select --
C2	-- select --		-- select --
C3	-- select --		-- select --
C4	-- select --		-- select --
C5	-- select --		-- select --
C6	-- select --		-- select --
C7	-- select --		-- select --

C8	-- select --		-- select --
C9	-- select --		-- select --
C10	-- select --		-- select --

D.	**Scheme:**	**Recommended Improvements, if any**
D1	EU ETS Installation	
D2	-- select --	
D3	-- select --	
D4	-- select --	
D5	-- select --	
D6	-- select --	
D7	-- select --	
D8	-- select --	
D9	-- select --	
D10	-- select --	

E.	**Scheme:**	**Prior year Non-conformities that have NOT been resolved.** **Any prior year Non-conformities reported in the previous Verification Report that have been resolved do not need to be listed here.**
E1	EU ETS Installation	
E2	-- select --	
E3	-- select --	
E4	-- select --	
E5	-- select --	
E6	-- select --	
E7	-- select --	
E8	-- select --	
E9	-- select --	
E10	-- select --	

Annex 1B - Methodologies to close data gaps

Scheme: EU ETS Installation

Was a data gap method required?	Yes
If Yes, was this approved by the competent authority before completion of the verification?	Yes
If No, - - was the method used conservative (If No, please provide more details)	 -- select --

- did the method lead to a material misstatement (If Yes, please provide more details)	-- select --

Verification Report - Emissions Trading System
EU ETS Annual Reporting

Edvard Grieg

Annex 2 - Further information of relevance to the Opinion

Objectives and scope of the Verification:	To verify the Operator's annual emissions to a reasonable level of assurance for the Annual Emissions Report (as summarised in the attached Opinion Statement) under the EU Emissions Trading System and to confirm compliance with approved monitoring requirements, approved monitoring plan and the EU Regulation on Monitoring and Reporting.
Responsibilities:	The Operator is solely responsible for the preparation and reporting of their annual greenhouse gas (GHG) emissions for the purposes of the EU ETS in accordance with the rules and their approved monitoring plan (as listed in the attached Opinion Statement); for any information and assessments that support the reported data; for determining the installation's objectives in relation to GHG information and for establishing and maintaining appropriate procedures, performance management and internal control systems from which the reported information is derived. The Competent Authority is responsible for - issuing and varying applicable permits to Operators or Aircraft Operators - enforcing the requirements of Regulation EU no. 2018/2066 on monitoring and reporting (MRR) and any conditions of applicable permits; - agreeing certain aspects of the verification process, e.g. site visit waivers; In exceptional circumstances, including those stated in Article 70(1)and 70(2) of the MRR, the CA may determine an Operator's or Aircraft operator's emissions [tonne-kilometre data] for the purposes of the ETS. The Verifier (as named on the Opinion Statement) is responsible for, in accordance with its verification contract and Commission Regulation EU no. 2018/2067 on Accreditation and Verification, carrying out the verification of an Operator or Aircraft operator in the public interest, independent of the Operator or Aircraft operator and the competent authorities responsible for Directive 2003/87/EC. It is the responsibility of the Verifier to form an independent opinion, based on the examination of information and data presented in the Annual Emissions Report [Tonne-Kilometre Report], and to report that opinion to the Operator or Aircraft Operator. We also report if, in our opinion: • the Annual Emissions Report [Tonne-Kilometre Report] is or may be associated with misstatements (omissions, misrepresentations or errors) or non-conformities; or • the Operator is not complying with Regulation EU no. 2018/2066 on monitoring and reporting , even if the monitoring plan is approved by the competent authority.

	• the EU ETS lead auditor/auditor has not received all the information and explanations that they require to conduct their examination to a reasonable level of assurance; or • improvements can be made to the Operator's performance in monitoring and reporting of emissions and/or compliance with the approved monitoring plan and Regulation EU no. 2018/2066 on monitoring and reporting.
Work performed & basis of the opinion:	We conducted our examination having regard to the verification criteria reference documents outlined below. This involved examining, based upon our risk analysis, evidence to give us reasonable assurance that the amounts and disclosures relating to the data have been properly prepared in accordance with the Regulations and principles of the EU Emissions Trading System, as outlined in the EU ETS criteria reference documents below, and the Operator's approved monitoring plan. This also involved assessing where necessary estimates and judgements made by the Operator in preparing the data and considering the overall adequacy of the presentation of the data in the Annual Emissions Report and its potential for material misstatement.
Materiality level	Unless otherwise stated in Annex 1, the materiality level was 5% of the total reported emissions for the period subject to verification.
	GHG quantification is subject to inherent uncertainty due to the designed capability of measurement instrumentation and testing methodologies and incomplete scientific knowledge used in the determination of emissions factors and global warming potentials

Reference documents cited :	**Conduct of the Verification (1) - For Accredited Verifiers**
	1) EU Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EN ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information 3) EN ISO 14064-3:2019 Specification with guidance for the validation and verification of GHG assertions 4) IAF MD 6:2014 International Accreditation Forum (IAF) Mandatory Document for the Application of ISO 14065:2013 (Issue 2, March 2014) 5) Guidance developed by European Commission Services on verification and accreditation 6) EA-6/03 European Co-operation for Accreditation Guidance For the Recognition of Verifiers under EU ETS Directive Member State-specific guidance is listed here: Select Relevant guidance documents from the list Select Relevant guidance documents from the list
	Conduct of the Verification (2) - Additional criteria for Accredited Verifiers that are also financial assurance providers
	8) International Standard on Assurance Engagements 3000 : Assurance Engagements other than Audits or Reviews of Historical Information, issued by the International Auditing and Assurance Standards Board. 9) International Standard on Assurance Engagements 3410 : Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board.
	Conduct of the Verification (3) - For Verifiers Certified under AVR Article 55(2)
	1) EC Regulation EU no. 2018/2067 on verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC….. (AVR) 2) EU guidance on certified verifiers developed by the Commission Services 3)….. Need to insert any other requirements/ guidance that are applied to the Certified Verifiers e.g. any local MS rules on the Certification Process
	Rules etc of the EU ETS
	A) EC Regulation EU no. 2018/2066 on the Monitoring and Reporting of GHGs pursuant to Directive 2003/87/EC (MRR) B) EU Guidance developed by the European Commission Services to support the harmonised interpretation of the Monitoring and Reporting Regulation

	C) EU Guidance material developed by the European Commission Services to support the harmonised interpretation of the AVR D) need to insert any other national requirements/ guidance that are applicable

Verification Opinion - Emissions Trading System
EU ETS Annual Reporting

Edvard Grieg

Annex 3 - Summary of conditions / changes/ clarification / variations

A) approved by the Competent Authority but which have NOT been incorporated within a re-issued Permit/ Monitoring Plan at completion of verification

	Scheme:	
1	EU ETS Installation	
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

B) identified by the verifier and which have NOT been reported by 31 December of the reporting year

	Scheme:	
1	EU ETS Installation	
2	-- select --	
3	-- select --	
4	-- select --	
5	-- select --	
6	-- select --	
7	-- select --	
8	-- select --	
9	-- select --	
10	-- select --	
11	-- select --	

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To Aker BP ASA

Independent auditor's assurance report

We have been engaged by Aker BP ASA ('Aker BP') to perform a limited assurance engagement as defined by International Standards on Assurance Engagements, hereafter referred to as the engagement, to report on the following 2021 data included in Aker BP's 2021 Sustainability Report:

Sustainability data: Environment	Pages	55 - 57
The People of Aker BP	Pages	68 - 70
Sustainability data: Occupational Health and Safety	Page	77

Our engagement has been performed with the purpose of expressing a limited level of assurance on this 2021 data only, and we do not provide any assurance over any other information in Aker BP's 2021 Sustainability Report. Historical data presented for 2020 and 2019 on the pages detailed above in Aker BP's 2021 Sustainability Report is not covered by our report.

Our conclusion

Based on the limited assurance procedures performed and the evidence obtained as described below, nothing has come to our attention to indicate that the 2021 data subject to our engagement as detailed above is not presented, in all material respects, in accordance with the criteria described in Aker BP's 2021 Sustainability Report.

Management's responsibilities

Management of Aker BP is responsible for the preparation and presentation of the 2021 Sustainability Report in accordance with the selected criteria.

These responsibilities include establishing such internal controls as management determines are necessary to enable the preparation of the information in the 2021 Sustainability Report which is free from material misstatement, whether due to fraud or error.

Our responsibility

Our responsibility is to provide a limited assurance conclusion on the 2021 Sustainability Report data which is subject to our engagement as detailed above.

We conducted our engagement in accordance with the International Standard for Assurance Engagements (ISAE 3000 revised): *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform the engagement to obtain limited assurance about whether, in all material respects, the data in the 2021 Sustainability Report subject to our engagement has been prepared in accordance with the described criteria.

We are independent of the company as required by laws and regulations and the International Ethics Standards Board for Accountants' Code of International Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. Our firm applies International Standard on Quality Control 1 (ISQC 1) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AS, a Norwegian limited liability company and member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Statsautoriserte revisorer - medlemmer av Den norske Revisorforening

Offices in:

Oslo, Alta, Arendal, Bergen, Bodø, Drammen, Elverum, Finnsnes, Hamar, Haugesund, Knarvik, Kristiansand, Mo i Rana, Molde, Skien, Sandefjord, Sandnessjøen, Stavanger, Stord, Straume, Tromsø, Trondheim, Tynset, Ålesund

Description of procedures performed

A limited assurance engagement consists of making enquiries, primarily of persons responsible for the preparation of Aker BP's 2021 Sustainability Report and applying analytical and other limited assurance procedures.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement, and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls.

Our procedures to provide limited assurance included, amongst others:

- Inquiries of management to obtain an understanding of the company's processes for the preparation and presentation of the 2021 Sustainability Report and the data subject to our engagement as detailed above; and
- Confirming on a sample basis the 2021 data included in Aker BP's 2021 Sustainability Report and subject to our engagement against the criteria described and other information prepared by Aker BP or external sources.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Oslo, 8 March 2022
KPMG AS



Roland Fredriksen
State Authorised Public Accountant

Memo to:	**Memo No:** 1092236
Aker BP	**From:** Lars Ulvestad
Øyvind Hille	**Date:** 27.04.2021
Jørgen Aubert	
Ottar Larsen	
DeepOcean	
Stefan Kjærnli	
Copied to:	**Prep. By:** Lars Ulvestad
Øyvind Fjukmoen, DNV	lars.ulvestad@dnv.com
Tor Jensen	+4748233821

Environmental monitoring Gråsel, B07
FIELD REPORT, PRE-DRILLING PHASE

Date of survey: 11th – 22th of April, 2021
DNV GL personnel: Lars Ulvestad
Vessel: Edda Fauna

1 SCOPE OF WORK

The scope of work at Gråsel, well B07, in the pre-drilling phase was to:

- Deploy 5 monitoring rigs at the closest corals, within 500m from the discharge location.
- Collect 4 sediment core samples, for pre-drilling reference.
- Visual assessment of 10 coral areas.

Scope of work has been outlined in the monitoring program (DNV, 2021). Placement of sediment stations, equipment rigs and corals can be seen in Figure 1.

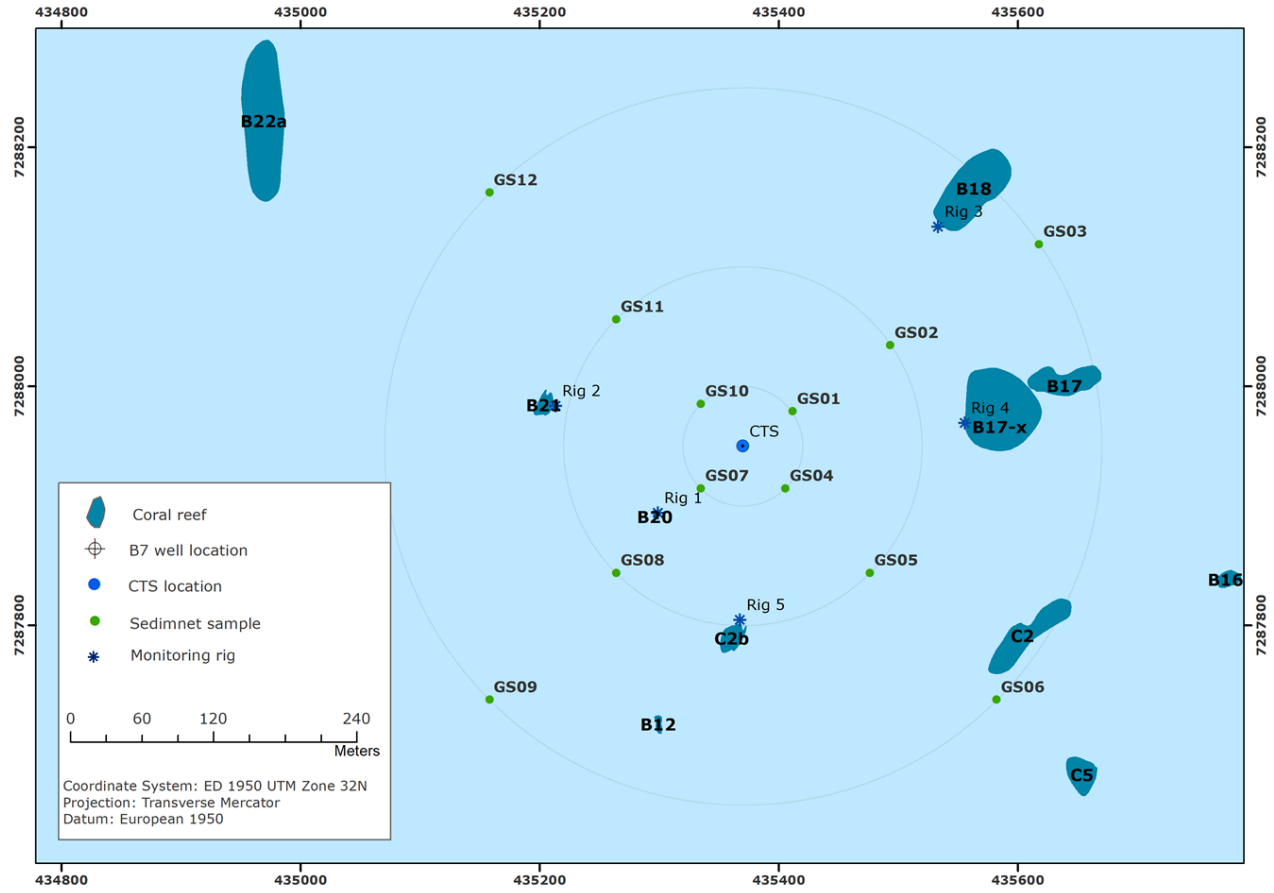


Figure 1-1 *Location of corals, rigs and sediment stations at Gråsel, B07.*

2 IMPLEMENTATION

The DNV scope was executed in accordance to Deepocean taskplan (Deepocean, 2021) in conjunction with well interference work at J03 at Tilje, and the environmental scope was conducted in two sessions:

1st part between 07:00 – 12:00 hrs the 13th of April

2nd part between 05:00 – 11:00 hrs, the 19th of April

for the scope, two WROVs where available. Estimated time for the DNV scope was 17 hours (with one ROV). Actual time spent was approximately 11 (5 + 6) hours.

3 SEDIMENT SAMPLING

Sediment samples were collected on the 13th of April. The sediment sampling rack was deployed, together with the instrument rigs, with a subsea basket. The rack was then picked up by the ROV (Superior 6). Samples were then collected by penetrating the seabed with the core sample tube by using the manipulator arm at the predefined locations (see Figure 2). The tube was then placed back in the rack and when all four locations were sampled, the ROV secured the rack and brought it back to deck. Sediment samples were documented and visually described before the top layer (0-1cm) was extracted for analysis of grain size distribution and metals (including barium). Details and pictures of the cores collected are shown in Table 1.

Table 1 *Sediment samples taken before drilling, for reference purpouses.*

GS01	**GS04**	**GS07**	**GS10**
Core tube 17 Sampled 13.04.21 09:30 Location (ED50 UTM32N) X 435400 Y 7287988	Core tube 25 Sampled 13.04.21 Location (ED50 UTM32N) X 435403 Y 7287195	Core tube 21 Sampled 13.04.21 Location (ED50 UTM32N) X 435335 Y 7287919	Core tube 19 Sampled 13.04.21 10:13 Location (ED50 UTM32N) X 435334 Y 7287982
			

All sediment samples were stored in dedicated freezer on board the vessel and brought back to the office in a cooling bag. The sediment samples will be stored in a freezer until they are sent for sediment analysis together with samples taken upon completion of the drilling campaign.

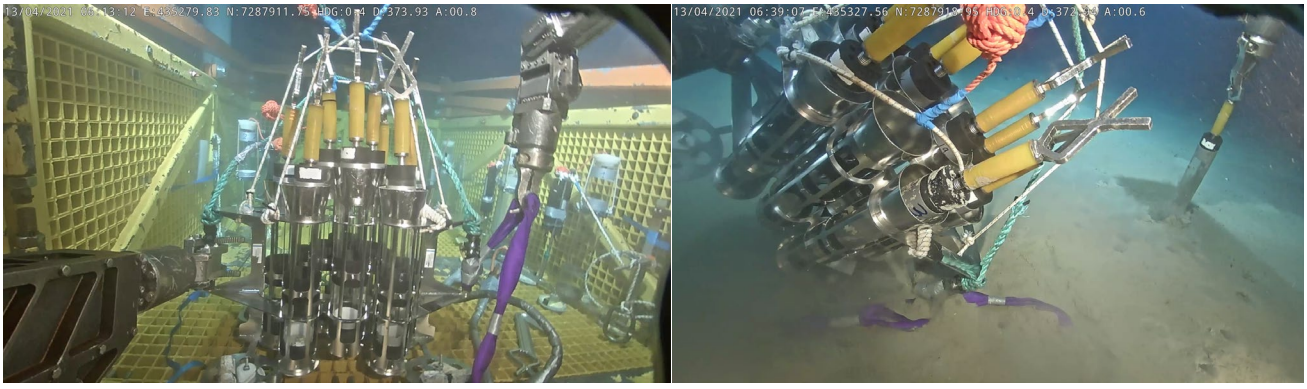


Figure 3-1 *Sediment rack in the subsea basket (left) and sampling at location (right)*

4 INSTRUMENT RIG DEPLOYMENT

The rigs were secured and lowered to the seafloor in a subsea basket. Rig-1 and Rig-2 were deployed the 13th of April. The job was thereafter aborted for prioritized work at J03. Rig-3, 4 and 5 were left at the seafloor for wet storage and retrieval of the subsea basket. Deployment was continued on the 19 of April. All instrument rigs were deployed successfully with the setup given in Table 2 The Rigs sediment traps were fitted with silicon lids attached with bungee cord and monkey fist (for ROV to grab), so that no sediment should enter the trap during deployment. The lids were opened as the last task, before leaving the coral area. See figures below for photos of the deployed Rigs.

Table 2 *Setup of the deployed rigs*

Rig	Sensor	Name	Sensor ID	Deployment settings	Deployed location (ED50 UTM32N)		Deployed Date time
					X	Y	
Rig 1	Current meter	B07 Current	AQD16437 400kHz	Start: 23:59 13.04.2021 Profile int: 900s, 15min No. of cells: 23 Cell size(m): 3 Assumed duration: 90d Battery utilisation: 93%	435297	7287895	13.04.21 09:29
	Turbidity	B07 1-1	024-338	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 82d			
	Turbidity	B07 1-2	024-089	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 147d			
Rig 2	Turbidity	B07 2-1	024-352	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 82d	435214	7287983	13.04.21 10:04
	Turbidity	B07 2-2	024-342	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 147d			
Rig 3	Turbidity	B07 3-1	024-177	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 82d	435558	7287796	19.04.21 07:23
	Turbidity	B07 3-2	024-180	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 147d			
Rig 4	Turbidity	B07 4-1	024-107	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 82d	435582	7287962	19.04.21 08:39
	Turbidity	B07 4-2	024-105	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 147d			
Rig 5	Turbidity	B07 5-1	024-093	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 82d	435361	7287799	19.04.21 09:22
	Turbidity	B07 5-2	024-082	Start: 23:59 13.04.2021 Burst interval: 5min Average over: 8 Samples per burst: 8 Burst sample rate: every 2s Battery life: 147d			

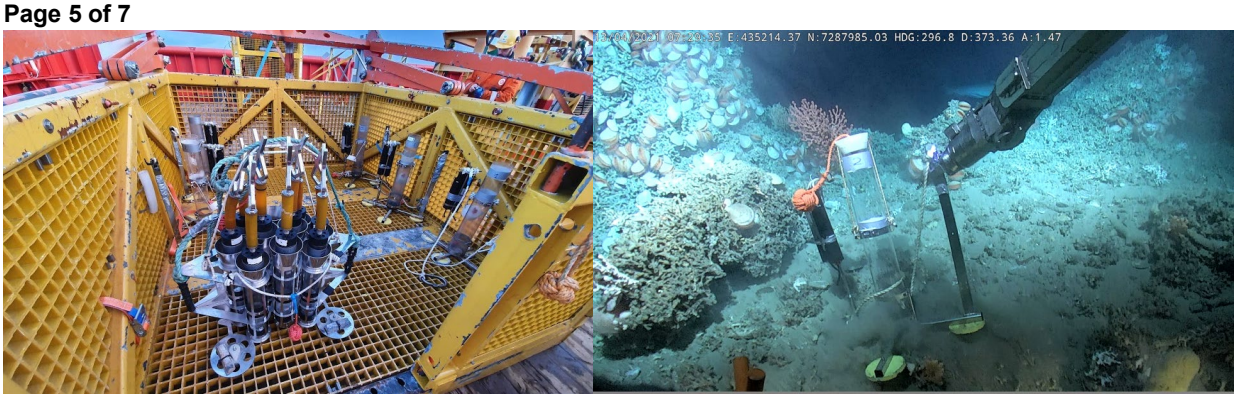


Figure 4-1 *Sediment rack and the rigs in the basket, prior to deployment (left). Rig 2 deployed at coral B21 (right)*

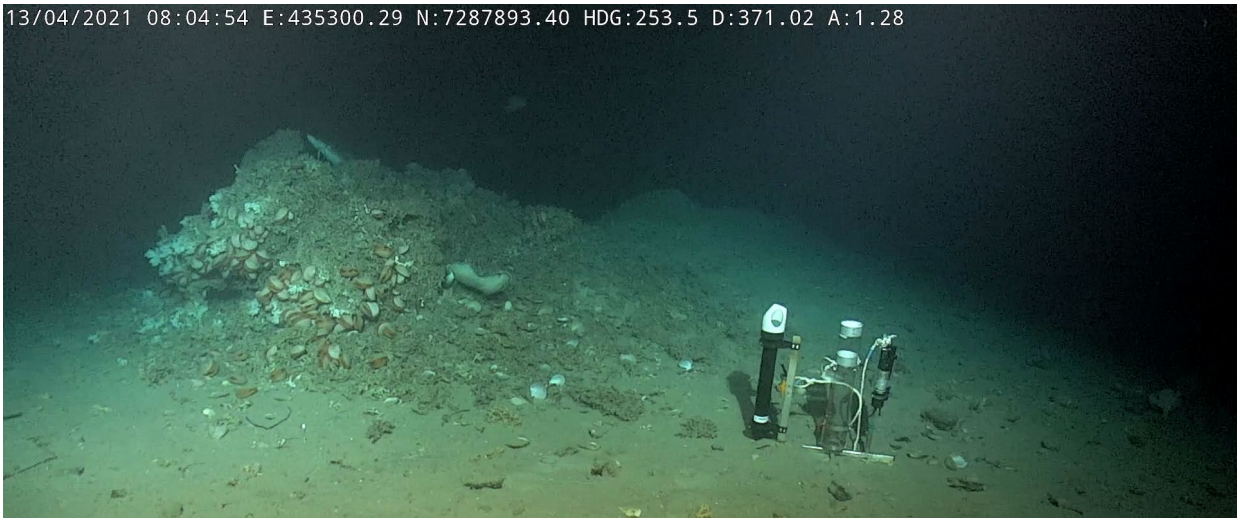


Figure 4-2 *Rig 1 (with current meter) deployed at coral B20.*

5 VISUAL INSPECTION OF CORAL AREAS

Visual assessment of coral structures was conducted with ROV on 10 coral aggregations. All corals were logged with regards to coral condition and location. Video and stills from the survey were recorded and brought back to the office, in order to compare coral condition before and after drilling.

Coral area B20 and B21 was inspected on 13th of April. Remaining coral areas were inspected on 19th of April. See below for a selection of images taken during the coral inspection.

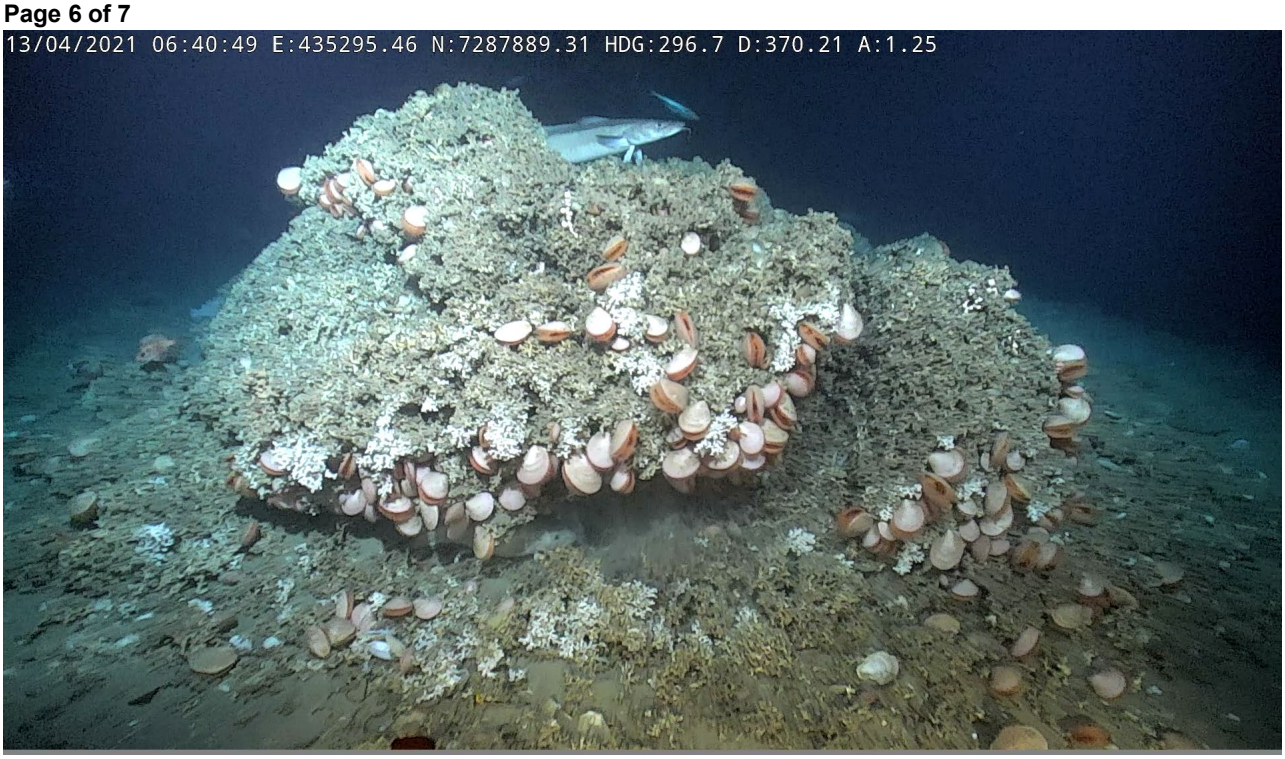


Figure 5-1 *Coral B20*



Figure 5-2 *Coral B21*

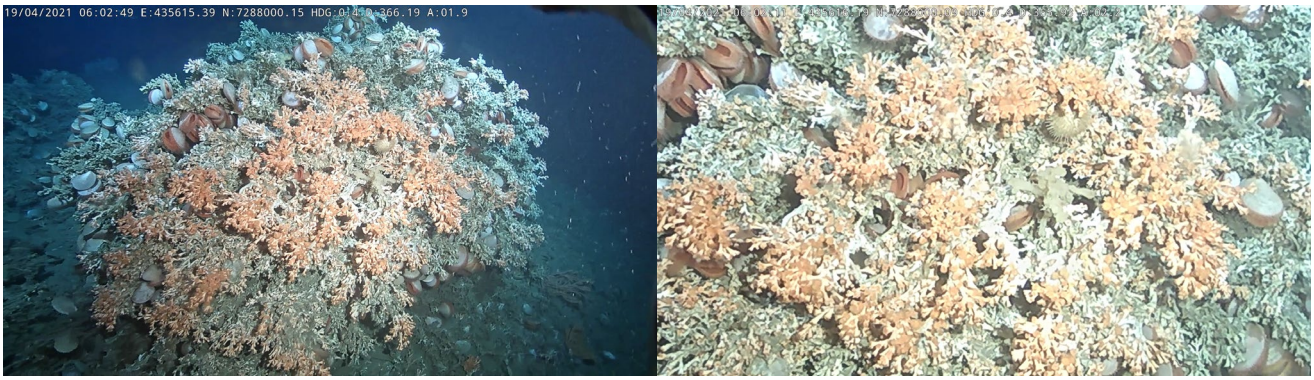


Figure 5-3 *Coral B17 (Orange morph of Desmophyllum pertusum)*

6 REFERENCES

Deepocean, 2021. SKARV - SEDIMENT EQUIPMENT PRE-LAY - TASK PLAN Doc no: NO.E11050-ENG-TPL-408

DNV, 2021. MONITORING PROGRAM AT GRÅSEL / B7 Memo No: 1091765

DEEPOCEAN

REPORT **NO.E11050-SUB-REP-092**

IMR no:	**IMR-21-177**
DO Doc no:	NO.E11050-SUB-REP-092
DO rev no:	
Client:	Aker BP
Client doc no:	SKASO-P0051-DOG-O-RA-0015
Client rev no:	

DOCUMENT TITLE:

ØRN ENVIRONMENTAL SURVEY – DNV VISUAL SURVEY REPORT

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IMR-21-177

ØRN ENVIRONMENTAL SURVEY – DNV VISUAL SURVEY REPORT

Revision Record		
Rev	**Date**	**Reason for Issue**
1	17.03.2022	Issued for Review

SURVEY AT ALVE NORD, SHREK, RONDESLOTTET AND ØRN

Visual survey report – Ørn to Skarv FPSO

DeepOcean AS

Report No.: 2021-1338, Rev. 00
Document No.: 1284907-2
Date: 2022-03-17



Project name:	Survey at Alve Nord, Shrek, Rondeslottet and Ørn	DNV AS Oil & Gas
Report title:	Visual survey report – Ørn to Skarv FPSO	Environmental Risk Mgt Nordics-4100-NO
Customer:	DeepOcean AS, Karmsundgaten 74	Veritasveien 1
	5529 Haugesund	
	Norway	
Customer contact:	Øystein Hersvik	
Date of issue:	2022-03-17	1363 Høvik
Project No.:	10308898	Norway
Organization unit:	Environmental Risk Mgt Nordics-4100-NO	Tel:
Report No.:	2021-1338, Rev. 00	945 748 931
Document No.:	1284907-2	

Applicable contract(s) governing the provision of this Report:

Objective:

To map the seafloor along new planned pipeline and umbilical routes, connecting the Ørn gas discovery (6507/2-5 S), to the Skarv FPSO

Prepared by:	Verified by:	Approved by:
Lars Ulvestad Senior Consultant	Amund Ulfsnes Principal Consultant	Tor Jensen Vice President - Head of Section

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0		First issue			

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Appendix A Inspected coral targets

1 EXECUTIVE SUMMARY

DNV, in cooperation with DeepOcean have performed a larger seabed mapping campaign in the Skarv/Ærfugl area. Part of the scope was to map the seafloor along new planned pipeline and umbilical routes, connecting the Ørn gas discovery (6507/2-5 S), to the Skarv FPSO. The other parts of the survey are reported separately.

- Visual survey report – Shrek to Skarv FPSO (DNV, in prep)
- Visual survey report – Alve Nord tie-in (DNV, in prep)

1.1 Results

The survey route was successfully surveyed in October, 2021. The survey strategy was performed in two steps.

1st - Bathymetric survey

Multibeam (0.5m grid) and sidescan sonar imagery was obtained. The water depth was ranging from approx. 287 m at the Ørn field to approx. 367 m, at the Skarv FPSO and the seafloor was found to be undulated with several ridges, furrows, and iceberg plough marks. From data interpretations, 407 potential coral areas were delineated.

2nd - Visual survey

Based on the MBES/SSS findings, a visual survey route was planned and executed. General findings of fauna are summarized in Table 5-1. In total 121 potential coral areas were visually inspected, and corals were found at 102 of the targets. The condition of the *D. pertusum* reefs were generally poor and the results are summarized in Table 5-2 below and in detail in Appendix 1.

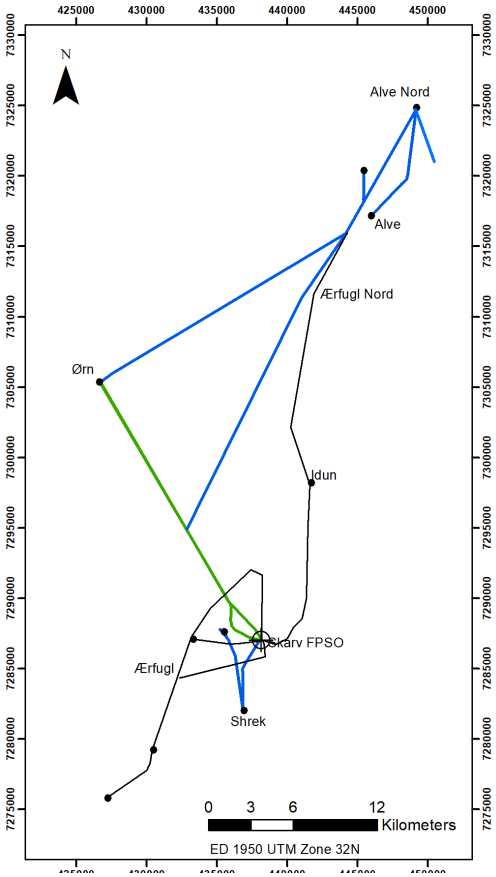


Figure 1-1 *The Skarv area (Ørn survey route in green)*

Table 1-1 *Protected / vulnerable habitat and species findings.*

Protected / vulnerable habitat or species.	Findings
***D. pertusum* reefs**	84 confirmed reefs, 290 potential reefs not surveyed
Coral gardens	95 confirmed findings, 290 potential gardens not surveyed
Deep sea sponge aggregations	Hard bottom associated species present, not interpreted as OSPAR habitat.
Sea pens and burrowing megafauna	Present in low densities, not equating to OSPAR habitat
Norwegian Red list for Species	*Sebastes norvegicus* (possibly present) - *Endangered* (EN) *Lamna Nasus (Porbeagle) – Vulnerable* (VU) *Desmophyllum pertusum - Near Threatened* (NT) *Paragorgia arborea - Near Threatened* (NT) Anthothela grandiflora - *Near Threatened* (NT)

Table 1-2 *Summary of coral interpretations.*

	Condition	Registrations	%		Condition	Registrations	%
D. pertusum reef	Excellent	3	2,5 %	Coral garden	Excellent	2	1,4 %
	Good	2	1,7 %		Good	9	6,3 %
	Fair	1	0,8 %		Fair	42	29,6 %
	Poor	12	9,9 %		Poor	63	44,4 %
	Dead	64	52,9 %		Not Present	26	18,3 %
	Not Present	39	32,2 %				

The coral targets and visual interpretations are in addition provided as a geodatabase *ABP213204_GIS-SSDM_ORN_Detail_20220309DNV.gdb*

2 INTRODUCTION

DNV, in cooperation with DeepOcean have performed a larger seabed mapping campaign in the Skarv/Ærfugl area. The purpose was to map the seafloor along new planned pipeline and umbilical routes, connecting satellite fields Ørn, Shrek and Alve Nord to the Skarv FPSO.

DNV was engaged to govern the environmental part of the scope, as the vulnerable and protected reef building cold water corals (*Desmophyllum pertusum)* and soft gorgonian corals (*Paragrogia arborea, Paramuricea placomus*) are known to be present. This document covers the tie in route from Ørn (6507/2-5 S) to Skarv FPS. Shrek and Alve Nord are reported separately.

- **Visual survey report – Shrek to Skarv FPSO** (DNV, in prep)
- **Visual survey report – Alve Nord tie-in** (DNV, in prep)

2.1 Location

The Skarv field is located in the northern part of the Norwegian Sea and the Skrav FPSO is connected to several satellite fields like Gråsel and Ærffugl and with further development planned with tie in to of the Alve Nord, Shrek and Ørn discoveries. (Figure 2-1).

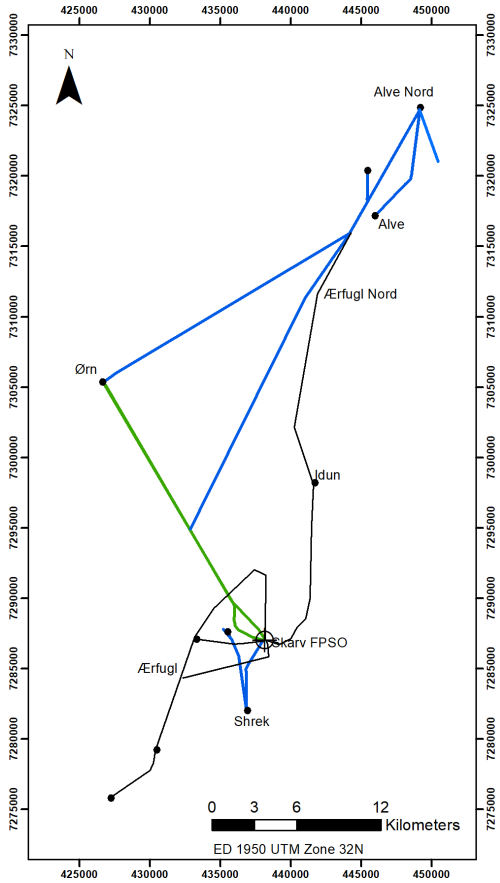


Figure 2-1 *The Skarv area (Ørn survey route in green, Shrek and Alve N in blue)*

The Ørn gas discovery (6507/2-5 S) is located approx. 22 km northwest of Skarv FPSO and was drilled by Equinor in 2019. Beforehand, DeepOcean performed a site survey in 2018 and found several coral targets within the survey area, a selection of the targets was visually surveyed.

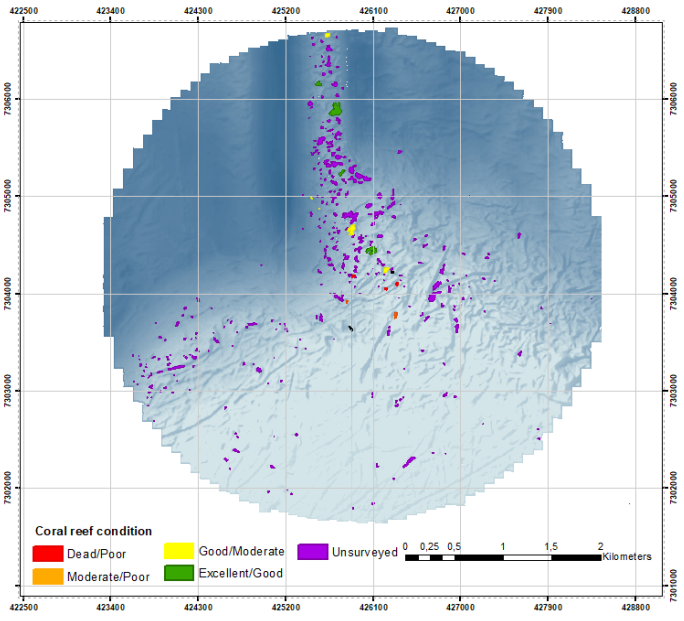


Figure 2-2 *The Ørn site survey (2500m radius) with delineated coral areas.*

2.2 Previous surveys

Numerous visual surveys have been performed in the Skarv area throughout the years and knowledge of the local fauna and seafloor characteristics is well documented. In are a selection of recent and relevant surveys conducted in the area.

Table 2-1 *Selection of relevant surveys in the Skarv area.*

.Year	Field	Document	Provider	Description
2016	**Snadd (Ærfugl)**	ENVIRONMENTAL FIELD REPORT NO.E10503.RE.16.089	DeepOcean, Gardline	Extended site survey
2017	**Snadd (Ærfugl)**	Skarv – Visual Survey of Corals along Snadd Pipeline SKASO-P0031-DOG-O-RA-0050	DeepOcean	Additional survey along new pipeline route
2018	**Ørn**	ST18908 - CORAL SURVEY - ØRN	DeepOcean	Site survey
2018	**Ærfugl**	VISUAL MAPPING AT ÆRFUGL - Environmental survey report Document No.: 180843	DeepOcean, DNV GL	Additional survey along umbilical routes and well locations
2018	**Shrek**	Site Survey at Shrek, NCS 6507/6 PL838	Gardline	Site survey, Seabed Investigation Report
2019	**Ærfugl**	VISUAL MAPPING AT ÆRFUGL PHASE 2-Environmental survey report	DeepOcean, DNV GL	Pipieline, umbilical and well survey for well 1 and 2.
2019	**Alve NE**	Site Survey at Alve NE NCS 6607/12 and 6608/10, PL127C ABP19307 Fugro Report No.: 133392.V01	Fugro	Site survey
2020	**Ærfugl**	Ærfugl Phase II - Umbilical Survey Report No.: 2020-0798	DNV GL	Additional survey along new umbilical routes
2021	**Storjo**	Site Survey at Newt-Barlindåsen, Environmental Habitat Report, Planned Well Locations Storjo East, Document No.: 194758V01 Vol. 3	Fugro	Site survey

2.3 Scope of work

The survey scope is described in detail in the SoW document (Aker BP, 2021), and was in short to investigate a possible tie-back route from Ørn to the Skarv FPSO. A survey program was developed to survey all potential corals of interest and/or other habitats of interest and to comply with the requirements given by the Norwegian Environment Agency's guidelines for environmental monitoring of petroleum activities – M300/M408 (MDIR, 2015). The program is summarized in the task plan (DeepOcean, 2021) and described in the following subchapters

This scope comprised the following main tasks:

- **Bathymetric & Geophysical detailed ROV survey along proposed routes/corridors**

  Cover a 400m wide tie in route corridor from Ørn to Skarv FPSO (approx. 15500m in length) and a larger site survey at the Skarv approach covering approx. 1500x3500 m (Figure 2-3).

- **ROV video inspections of:**

  - Boulders/Debris greater than 1.5m in any dimension, including any linear seabed
  - Features indicative of cable debris
  - Potential cold-water corals

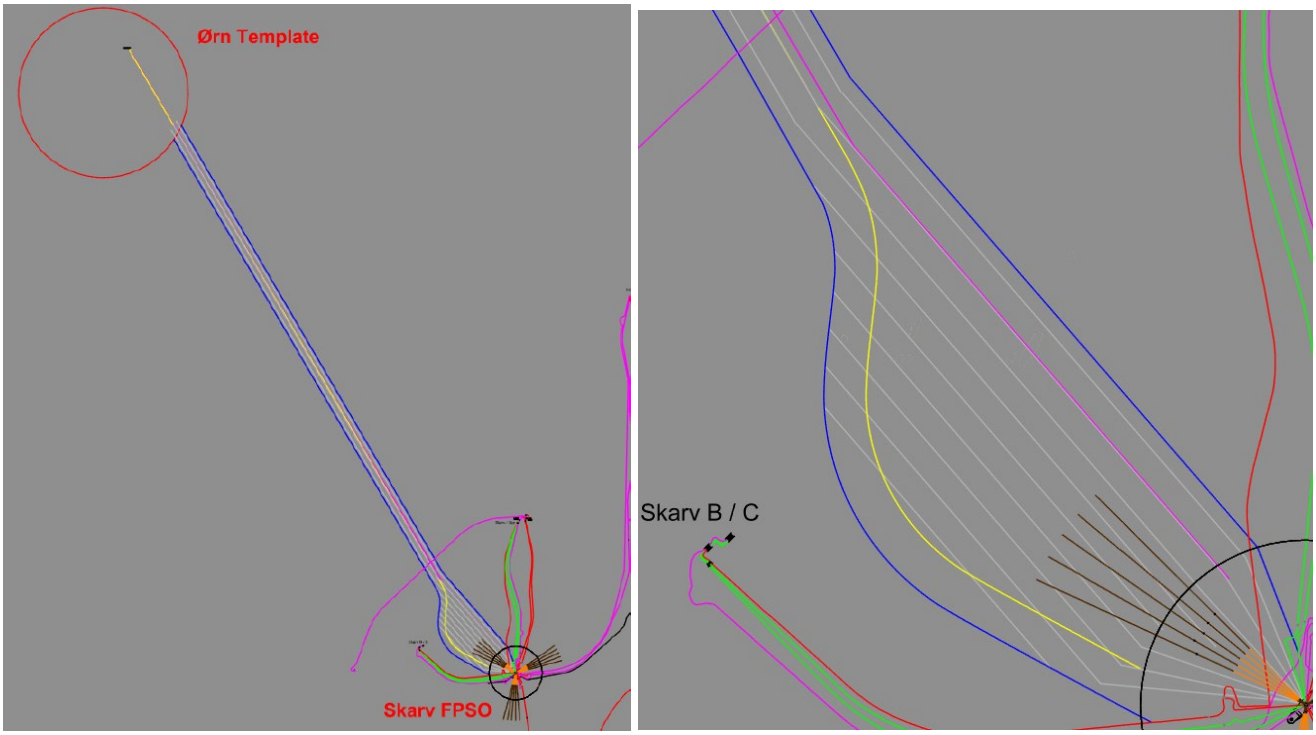


Figure 2-3 *The Ørn bathymetric suvey plan, with proposed running lines (light grey) and survey boundaries (blue) (from the Aker BP SoW document)*

2.4 Background on corals

Considerable knowledge on the corals at the Norwegian Continental Shelf has been assembled, due to the possible impacts from the offshore oil and gas and fishery industries. Governmental measures such as the establishment of a monitoring program (MAREANO), protection of specified areas and regulations have been established. During 2010 Norsk olje og gass invited the international scientific community, authorities and industry to discuss contemporary knowledge regarding cold water corals and a possible way forward based on current knowledge and experiences.

In May 2012, the Directorate for Nature Management (DN, now merged with Norwegian Environment Agency) commissioned by the Ministry of Environment published a system for environmental valuation and vulnerability criteria for marine species and habitats (havmiljo.no). Both cold water corals and coral gardens are in general evaluated on three parameters; uniqueness, life historical importance, and sensitivity. As basis, Havmiljo.no refers to IMR (Institute of Marine Research) and OSPAR for evaluating these parameters. *Desmophyllum pertusum* and the gorgonian coral *Paragorgia arborea* are regarded as threatened and nearly threatened species according to categories defined by IUCN (International Union for Conservation of Nature) (OSPAR, 2008), and according to the Norwegian Red List for Species (Henriksen, S. and Hilmo, O. (eds.) 2015), respectively. Other corals listed as nearly threatened or data deficient in the Norwegian Red List are *Anthomastus grandiflorus* and *Swiftia pallida*. All four species listed as nearly threatened or data deficient should be prioritized for protection. Furthermore, the Norwegian Red List for Ecosystems and Habitat Types 2018 (Lindgaard *et al*. 2011) rates the environmental status of ecosystems comprised of corals; e.g. coral reefs (stony corals mainly of the species *L. pertusa*) are listed as vulnerable, and coral gardens (predominantly comprised of *Paragorgia arborea*) are listed as near threatened. Coral gardens are defined in the OSPAR Agreement of 2008-7 as a relatively dense aggregation extending over at least 25m^2 of colonies or individuals of one or more coral species, such as leather gorgonians (*Gorgonacea*), (*Alcyonacea*), sea pens (*Pennatulacea*), black corals (*Antipatharia*), hard corals (*Scleractinia*) and, in some places, stony hydroids (lace or hydrocorals: *Stylasteridae*).

***Desmophyllum pertusum* (previously *Lophelia pertusa*)**

The cold water coral *D. pertusum* is the most common reef building stony coral in the North Atlantic Ocean, creating a diverse habitat for more than 1000 different species. *D. pertusum,* is found on both sides of the Atlantic Ocean at depths from 30 meters down to 3000 meters, generally found at depths deeper than 300 meters. The largest *Desmophyllum* reefs in the world are found on the Norwegian Continental Shelf, covering an area up to of 60000 m^2. *D. pertusum* is known for being relatively slow growing, and the largest reef structures are more than 9000 years old. In the recent years *D. pertusum* reefs have been recognized as a threatened habitat in need of protection.

Paragorgia arborea:

The gorgonian coral *P. arborea,* commonly termed bubblegum coral, is often found growing on or among *D. pertusum* reef structures. An individual fan-shaped *Paragorgia* is a colony of polyps connected by a central stem which typically branches off in one plane. Such colonies can grow up to about 6 meters high.



The reef building cold water coral *Desmophyllum pertusum* (white/grey), and gorgonian coral *Paragorgia arborea* (pink).

Deep water coral communities are generally regarded as sensitive to human activities. Sedimentation and covering of the live coral polyps is regarded as one of the major threats to living coral reefs from drilling (Mortensen, *et al*. 2001; White *et al*., 2005; Thiem *et al*., 2006; Kiriakoulakis *et al*., 2007; Davies *et al*., 2008). Criteria for adverse effects on corals caused by sedimentation of drilling discharges are not yet established, however, some conclusions may be made based on previous studies.

2.5 Background on sponges

In recent years, there has been an increased focus on seabed sponge assemblages and their vulnerability to human impact such as drilling operations or trawling. OSPAR (2013) has defined “Deepsea sponge aggregations” as a seabed community type that should be regarded as sensitive.

There are sponge aggregations that potentially can be regarded as sensitive habitats, when densities of sponges are high enough. Densities of 0.5-1 per m^2 of sponges in the class demopongiae are reported to occur in areas characterised as OSPAR habitat “Deepsea sponge aggregations” (OSPAR 2010). Figure 2-4 shows a typical high density sponge bed habitat.

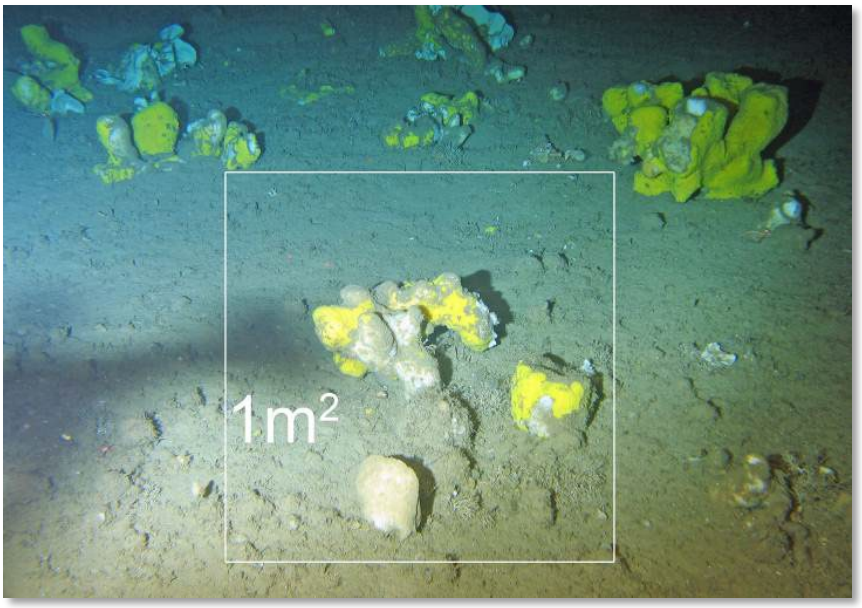


Figure 2-4 *Typical high density sponge bed habitat in the Barents Sea. Picture taken relatively close to the seabed. Note that the brown nodules also are sponges.*

Within Norwegian waters there are 260 species of sponges, with the class Demospongia accounting for most of the species present. The water depths that sponges are usually found in are between 250 and 1300 m (Bett and Rice, 1992). Sponges occur on both hard substrata such as boulders and cobble or on soft substrate. Higher densities are usually found in higher aggregates on hard bottom substrata. Sponges are often found in iceberg plough-mark zones because stable boulders and cobbles provide attachment for sponges.

Deep sea sponge aggregations are on the OSPAR list of threatened and/or declining species and habitats (OSPAR Agreement 2008 – 7). Deep sea sponge aggregates primarily are composed of the classes Hexactinellida and Demospongia (OSPAR 2008). There are 24 sponge species that are classified on the Norwegian Red list (Artsdatabanken, 2021), and all but one species is classified as Data Deficient (DD). Thirteen of the species on the Red list belong to Demospongia, with 12 classified as (DD) and one as Near Threatened (NT), - a freshwater species.

Yet another habitat related to corals is the OSPAR habitat “Seapens and burrowing megafauna” (OSPAR, 20. This is generally concerning high densities of burrowing Norway lobsters (*Nephrops norvegicus*) in association with sea pens. Such habitats can be found in fjord systems in Norway but generally has not been a concern in offshore fields where such high occurrences of seapens and megafauna are not expected.

3 SURVEY

The survey was performed from the IMR vessel Volantis, on charter by DeepOcean from Volstad Maritime (Figure 2-3) The scope was a part of a larger survey campaign, running from the 13th of September until the 4th of November in 2021. DeepOcean had the main lead, providing survey personnel, ROV and equipment for bathymetry, while DNV marine biologists were responsible for visual survey and fauna registration. DNV personnel onboard are shown in Table 3-1.

A field memo was delivered upon survey completion, summarizing the completed scope and remaining work (DNV, 2021)



Figure 3-1 *The IMR vessel Volantis (from www.volstad.com)*

Table 3-1 *DNV personnel onboard Volantis during the survey campaign. *Thomas Møskeland was taken of the ship 21.10.2021, due to positive COVID-19 antigen test onboard.*

Survey personnel	Embark	Disembark
Amund Ulfsnes, Eirik Sæbø	13.09.2021	22.09.2021
Lars Ulvestad, Eirik Sæbø	22.09.2021	04.10.2021
Amund Ulfsnes, Fredrik Melsom	04.10.2021	20.10.2021
Øyvind Fjukmoen, Thomas Møskeland*	20.10.2021	04.11.2021

3.1.1 Seabed Mapping Survey (Multibeam and side scan sonar)

The seafloor was surveyed with multibeam echo sounder (MBES), and side scan sonar (SSS) mounted on the ROV, the data was then processed “on the fly” when gathered (0.5m grid). Preliminary interpretations of SSS data in combinations with the MBES data collected during the high-fly survey, was used to identify targets, seabed features and changes in reflectivity which could be subject for further visual survey. Final and post possessed bathymetric maps and delineated seabed features were delivered to DNV office upon completion and are further used in this report.

3.1.2 Visual Coral Inspection

A visual survey track was designed onboard, based on interpretations of bathymetric data from the seabed mapping survey, and delineated targets and points were visually inspected. Marine biologists were continuously registering benthic megafauna and substrate along the seabed, further described below.

3.2 Visual survey

3.2.1 Video registrations

An electronic registration form (DNV video log) was used for each ROV dive. The log included date, time, type of seabed substratum and mega-fauna observations. In parallel, the ROV position was recorded every second with heading, depth and altimeter for the ROV in a navigation log. By merging the ROV track log with the registrations form, all registrations from the video were given a coordinate to be used for analysis of interpretations. In areas consisting of various substrates the coarsest fraction was recorded, and assessments of proportion from each category were not carried out. All megafauna species and habitat types encountered during the survey were registered.

3.2.2 Assessment of corals

An assessment of reef condition for the explored corals was made based on video documentation collected in the survey line. The scoring system/evaluation of condition is based on the DNV GL guideline developed for Norwegian Oil and Gas (Norog, 2019). Corals are categorized as “poor”, “fair”, “good” and “excellent” (Table 3-2). Examples of the categories for condition are shown in Figure 3-2 below. For a combined assessment of each structure, values were given to each category as described in Table 3-4. Note that this coral reef condition is a way of giving values to the reef structures so they can be compared and does not necessarily describe the true health condition of the reef.

Number of the non-reef building gorgonian corals such as *Paragorgia arborea* was registered in semi-quantitative categories and number of individuals per 25 m^2 were counted for OSPAR Coral Garden classification. Classification criteria and example pictures are shown in Table 3-3 and Figure 3-3 respectively.

Table 3-2 *Desmophyllum (Lophelia) colony classification (from NOROG,2019)*

DESMOPHYLLUM		**Density of living polyps on colony front**				
		< 5%	**5 – 20 %**	**20 – 40 %**	**40 – 60 %**	**> 60 %**
Total area of living *Desmophyllum* on colony front	**< 2.5 m^2** Length and height: < 1.6 m or radius < 0.9 m	Dead	Poor	Poor	Fair	Good
	2.5 – 10 m^2 Length and height: 1.6 - 3.2 m or radius 0.9-1.8 m	Dead	Poor	Fair	Good	Excellent
	10 – 25 m^2 Length and height: 3.2 - 5 m or radius 1.8 - 2.8 m	Poor	Fair	Good	Good	Excellent
	> 25 m^2 Length and height: > 5 m or radius >2.8 m	Fair	Good	Good	Excellent	Excellent

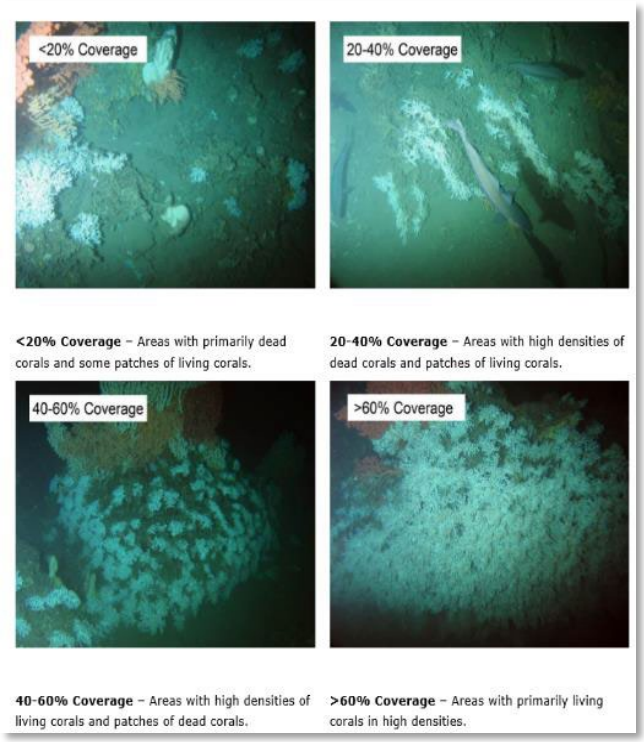


Figure 3-2 *Classification scheme for coral mapping*

Table 3-3 *Criteria for gorgonian coral garden (= "Coral garden") classification*

CORAL GARDEN	Specimens per 25m^2
Paragorgia, single on boulder	1
Poor	<5
Fair	5-10
Good	10-15
Excellent	>15

Table 3-4 *Condition based value system for Coral gardens and Desmophyllum reefs.*

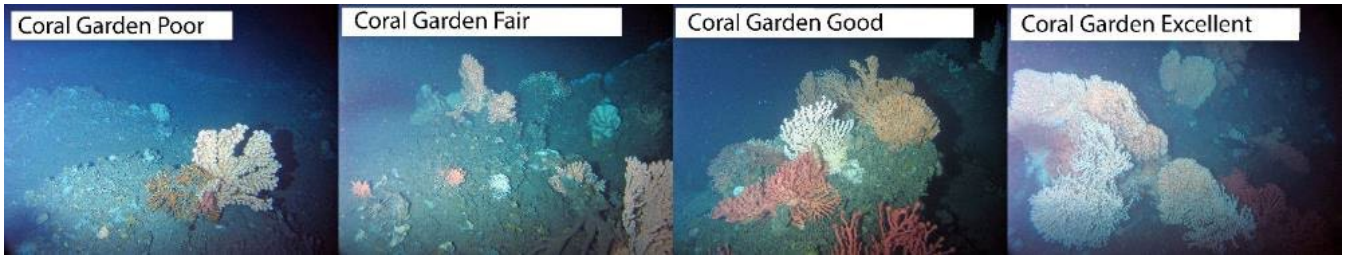


Figure 3-3 *Coral garden classification examples. Assessments are made over an area of 25m^2, i.e. the immediate area surrounding the ROV*

Value	**1**	**2**	**3**	**4**	**5**	**6**
***Desmophyllum* reef**	Dead	Poor	Fair	Good	Excellent	Unmapped
Coral garden	Poor (>5/25m^2)	Fair (>5-10/25m^2)	Good (>10-15/25m^2)	Excellent (<15/25m^2)	Unmapped	

Table 3-5 *Classification of combined coral values*

Condition	**Dead/Poor**	**Poor/fair**	**Fair/good**	**Excellent/Good**	**DD (Data deficient)**
Combined Value	**1-2**	**3**	**4**	**5-9**	**11**

4 RESULTS

4.1 Bathymetric survey

The Ørn bathymetric survey was successfully completed the 21st of October, 2021. The seafloor was sloping towards to the south, ranging from approx. 287 m at the Ørn field to approx. 367 m, at the Skarv FPSO. The seafloor was undulated with several ridges, furrows, and iceberg plough marks. Potential corals were outlined from the SSS and MBES data, and in total 407 areas were delineated. A route was created for the visual survey, covering 119 potential corals closest to the planned pipeline route.

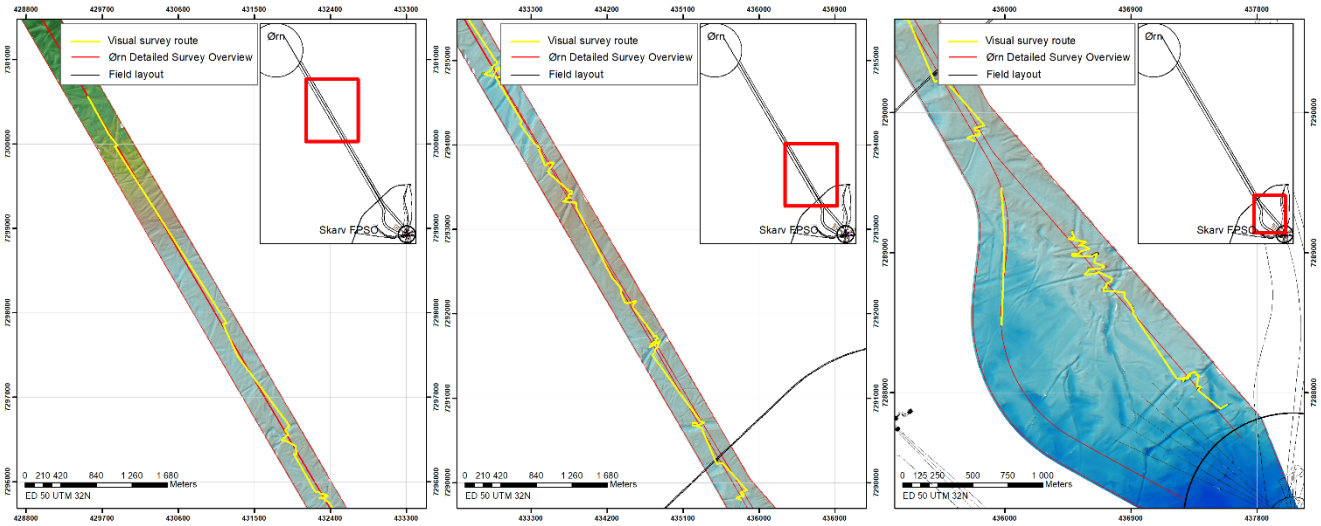


Figure 4-1 The gathered bathymetry and the visual survey route, based on outlined coral targets.

4.2 Visual survey

The visual survey along the pipeline route was successfully conducted between the 27th to 31th of October in three consecutive dives (*Table 4-1*), with some interruptions due to increments in weather. In total 17.5 hours of video was gathered and 714 georeferenced photos were obtained. In addition, two potential coral targets, that were crossed by the planned route, but within the previously surveyed Ørn area (thus outside MBES/SSS scope), were mapped the 7th of October. In total approx. 19 km of seafloor was covered. See *Table 4-1*for details.

Table 4-1 *ROV survey details for the coral inspections*.

Dive	Start	Stop	Time	Distance (km)	Comment
1	07.10.2021 19:51:07	07.10.2021 20:27:52	00:36:45	0.2	Spot check on 2 potential corals at the Ørn field.
2	27.10.2021 11:35:01	27.10.2021 15:09:24	03:34:23	2.9	Tie in area at Skarv FPSO
3	28.10.2021 08:38:15	28.10.2021 15:24:22	06:46:07	6.4	Southern part of the route corridor.
4	30.10.2021 20:01:08	31.10.2021 03:13:28	07:12:20	9.5	Northern part of the route corridor.

4.2.1 Seafloor characteristics

The seafloor was, as found on previous surveys, mainly soft mud /sand with occasional gravel, boulders, mounds and biogenic reefs, especially along the ridges of scour marks. As on previous visual surveys in the area, large numbers of saithe (*Pollachius virens)* were gathered hunting in the light in front of the ROV, stirring up sediment and occasionally causing poor visibility.



Figure 4-2 *Left; dominating substrate, soft mud/sand and schooling saithe. . Right; typical seafloor with elements of harder substrates.*

4.2.2 Coral inspection

In total 121 potential corals were inspected and *Desmophyllum pertusum* reefs were found at 82 (68%) of the delineated targets. Most reefs were found closer to Skarv were gradually decreasing towards Ørn. The survey results is presented in maps (Figure 4-5 and Figure 4-6 and further described in Appendix 1) The general condition of the *D. pertusum* in the area is poor (as documented in previous surveys), with the majority of the reefs logged as dead (78%). Living *D* pertusum was found on 18 targets ranging from poor to excellent (see Table 4-2 and Figure 4-3 below for details)

Gorgonian corals classed as coral gardens were found on 95 of the inspected coral targets and were commonly found living on top of the reef structures, in numbers ranging from poor to excellent. (see Table 4-2 and Figure 4-3 below for details) Occasional solitary gorgonians (40 recordings) were found living on rocks, both inside and outside the delineated coral areas (Figure 4-4). These are commonly observed at Haltenbanken and are not regarded as a coral garden habitat.

Table 4-2 *Summary of coral interpretations*.

D. pertusum reef				Coral garden			
	Condition	**Registrations**	**%**		**Condition**	**Registrations**	**%**
	Excellent	3	2,5 %		Excellent	2	1,7 %
	Good	2	1,7 %		Good	9	7,4 %
	Fair	1	0,8 %		Fair	21	17,4 %
	Poor	12	9,9 %		Poor	63	52,1 %
	Dead	64	52,9 %		Not Present	26	21,5 %
	Not Present	39	32,2 %				



Figure 4-3 *Left; Part of the coral target ENV_Ørn_018, a D. pertusum reef in good condition. Right; Coral garden in Good condition at coral target ENV_Ørn_101.*

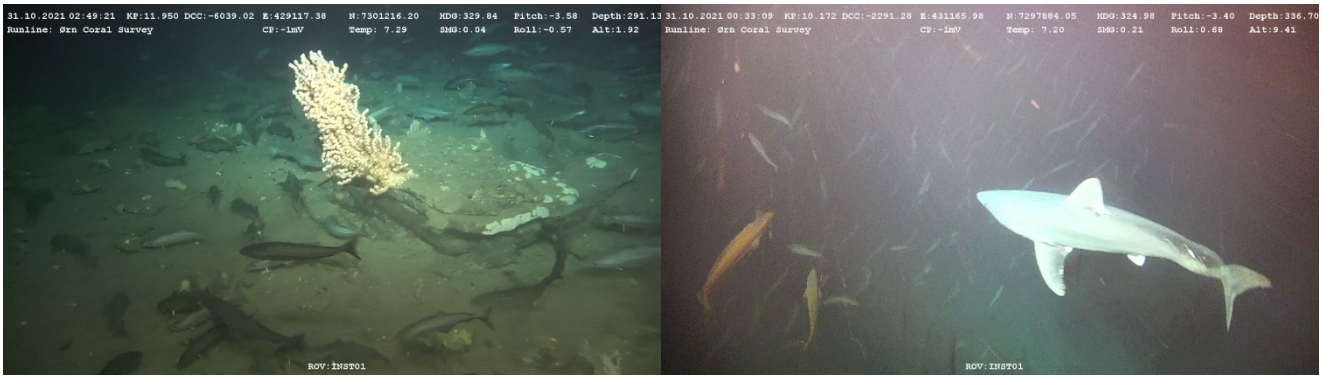


Figure 4-4 *Left;Single bubblegum coral (Paragorgia arborea) on boulder. Right; Porbeagle shark (Lamna nasus)*

4.2.3 Other fauna

Sponges were observed in scattered to common densities and mainly hardbottom related species. No sponge densities equating to OSPAR deep sea sponge aggregations were present.

Sea pens and burrowing mega fauna was found in the flat mud/sand areas in low densities not equating to OSPAR Sea pens and burrowing mega fauna habitat.

Around the reef structures redfish, *Sebastes* sp., were commonly found, one species, *Sebastes norvegicus,* is classified as endangered on the Norwegian red list, it was however not possible to differentiate between redfish species from the video. There was one observation of the porbeagle shark (*Lamna nasus*), which is regarded as vulnerable. The species have been observed on several occasions, during previous surveys in the Skarv area.

Apart from the cold-water corals and fish observations, no species on the Norwegian red list for species were observed.

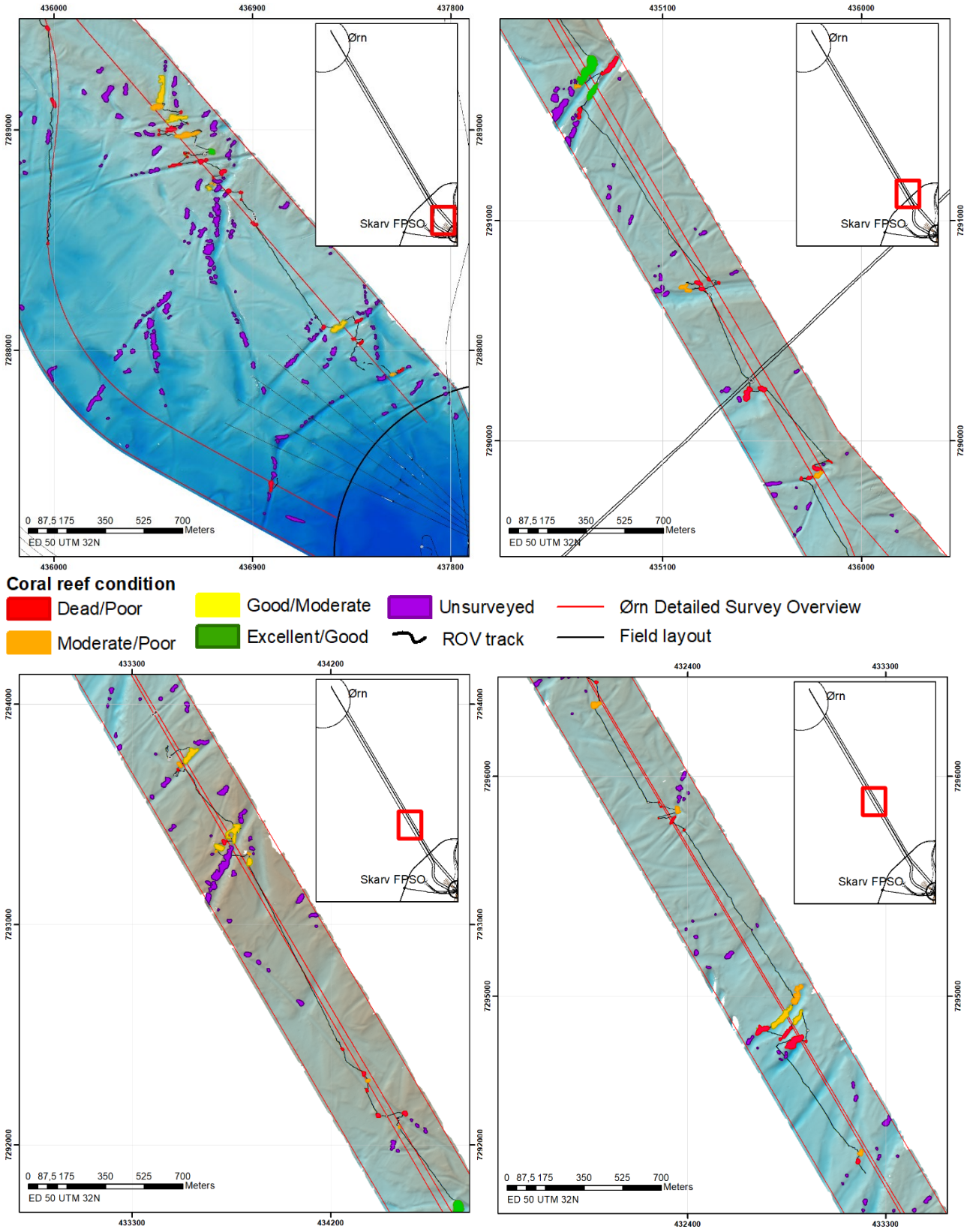


Figure 4-5 *Maps of the delineated coral areas and the visual survey route with coral interpretations.*

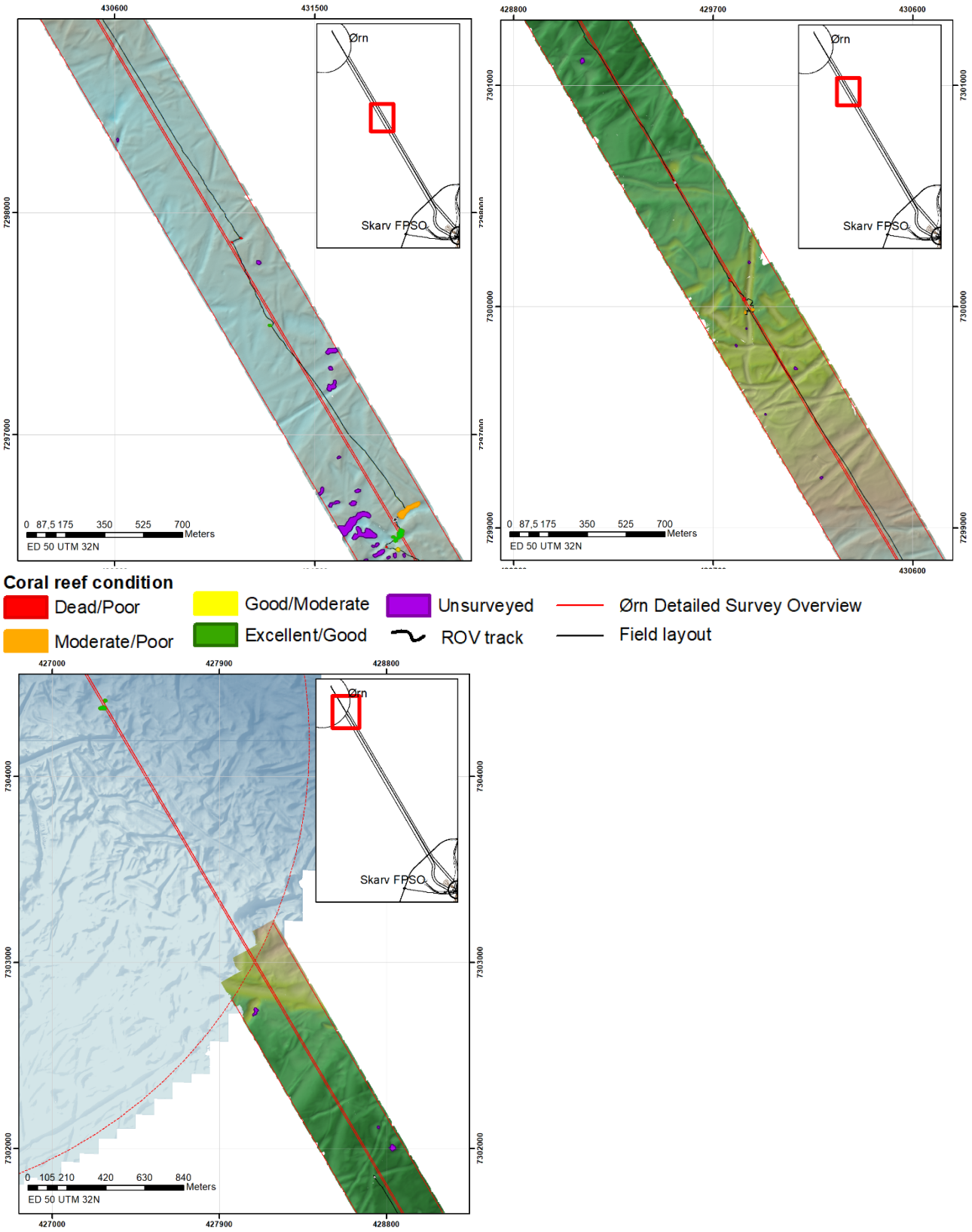


Figure 4-6 *Maps of the delineated coral areas and the visual survey route with coral interpretations.*

4.3 Environmental resource map

The coral targets and visual interpretations are also provided as a geodatabase *ABP213204_GIS-SSDM_ORN_Detail_20220309DNV.gdb*

5 SUMMARY

The Ørn to Skarv FPSO survey route was successfully surveyed in October 2021. The survey strategy was performed in two steps.

1st - Bathymetric survey

Multibeam (0.5m grid) and sidescan sonar imagery was obtained. The water depth was ranging from approx. 287 m at the Ørn field to approx. 367 m, at the Skarv FPSO and the seafloor was found to be undulated with several ridges, furrows, and iceberg plough marks. From data interpretations, 407 potential coral areas were delineated.

2nd - Visual survey

Based on the MBES/SSS findings, a visual survey route was planned and executed. General findings of fauna are summarized in Table 5-1. In total 121 potential coral areas were visually inspected, and corals were found at 102 of the targets. The condition of the *D. pertusum* reefs were generally poor and the results are summarized in Table 5-2 below and in detail in Appendix 1.

Table 5-1 *Protected / vulnerable habitat and species findings.*

Protected / vulnerable habitat or species.	Findings
***D. pertusum* reefs**	84 confirmed reefs, 290 potential reefs not surveyed
Coral gardens	95 confirmed findings, 290 potential gardens not surveyed
Deep sea sponge aggregations	Hard bottom associated species present, not interpreted as OSPAR habitat.
Sea pens and burrowing megafauna	Present in low densities, not equating to OSPAR habitat
Norwegian Red list for Species	*Sebastes norvegicus (*possibly present) - *Endangered* (EN) *Lamna Nasus (Porbeagle) – Vulnerable (*VU) *Desmophyllum pertusum - Near Threatened* (NT) *Paragorgia arborea - Near Threatened* (NT) Anthothela grandiflora - *Near Threatened* (NT)

The coral targets and visual interpretations are also provided as a geodatabase *ABP213204_GIS-SSDM_ORN_Detail_20220309DNV.gdb*

Table 5-2 *Summary of coral interpretations.*

	Condition	Registrations	%		Condition	Registrations	%
D. pertusum reef	Excellent	3	2,5 %	Coral garden	Excellent	2	1,4 %
	Good	2	1,7 %		Good	9	6,3 %
	Fair	1	0,8 %		Fair	42	29,6 %
	Poor	12	9,9 %		Poor	63	44,4 %
	Dead	64	52,9 %		Not Present	26	18,3 %
	Not Present	39	32,2 %				

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APPENDIX A
Inspected coral targets

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_007	Dead	Poor	1	1	2	429775	7300119	50
ENV_ØRN_008	Not present	Fair	0	2	2	429840	7300034	136
ENV_ØRN_009	Not present	Good	0	3	3	429879	7299987	99
ENV_ØRN_010	Poor	Poor	2	1	3	429845	7299974	61
ENV_ØRN_018	Good	Poor	4	1	5	431299	7297493	136
ENV_ØRN_027	Poor	Poor	2	1	3	431918	7296662	2489
ENV_ØRN_028	Not present	Not present	0	0	0	431862	7296619	224
ENV_ØRN_031	Ecxellent	Fair	5	2	7	431878	7296548	1523
ENV_ØRN_033	Poor	Fair	2	2	4	431875	7296484	270
ENV_ØRN_038	Not present	Poor	0	1	1	431985	7296428	162
ENV_ØRN_041	Dead	Fair	1	2	3	431982	7296325	1057
ENV_ØRN_048	Dead	Fair	1	2	3	432354	7295848	582
ENV_ØRN_049	Not present	Poor	0	1	1	432333	7295801	359
ENV_ØRN_059	Poor	Poor	2	1	3	432897	7295006	2230
ENV_ØRN_060	Dead	Good	1	3	4	432829	7294902	3003
ENV_ØRN_061	Fair	Poor	3	1	4	432901	7294901	1276
ENV_ØRN_062	Dead	Poor	1	1	2	432738	7294847	1461
ENV_ØRN_063	Dead	Poor	1	1	2	432847	7294828	989
ENV_ØRN_065	Dead	Not present	1	0	1	432885	7294791	2638
ENV_ØRN_074	Dead	Fair	1	2	3	433186	7294287	510

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_077	Dead	Poor	1	1	2	433174	7294248	325
ENV_ØRN_087	Not present	Not present	0	0	0	433403	7293960	334
ENV_ØRN_092	Poor	Fair	2	2	4	433564	7293770	2158
ENV_ØRN_093	Not present	Not present	0	0	0	433470	7293756	186
ENV_ØRN_094	Dead	Fair	1	2	3	433516	7293727	398
ENV_ØRN_095	Dead	Poor	1	1	2	433508	7293703	93
ENV_ØRN_101	Dead	Good	1	3	4	433761	7293420	2472
ENV_ØRN_104	Dead	Poor	1	1	2	433718	7293376	346
ENV_ØRN_105	Dead	Good	1	3	4	433695	7293351	1008
ENV_ØRN_107	Dead	Fair	1	2	3	433681	7293333	66
ENV_ØRN_108	Poor	Poor	2	1	3	433830	7293323	117
ENV_ØRN_111	Dead	Good	1	3	4	433832	7293285	756
ENV_ØRN_126	Dead	Not present	1	0	1	434253	7292436	115
ENV_ØRN_127	Dead	Poor	1	1	2	434351	7292324	257
ENV_ØRN_128	Poor	Poor	2	1	3	434368	7292293	257
ENV_ØRN_129	Dead	Poor	1	1	2	434364	7292249	122
ENV_ØRN_130	Dead	Poor	1	1	2	434537	7292144	409
ENV_ØRN_131	Dead	Poor	1	1	2	434415	7292134	310
ENV_ØRN_134	Dead	Fair	1	2	3	434510	7292081	80
ENV_ØRN_138	Not present	Poor	0	1	1	434864	7291702	1906
ENV_ØRN_139	Dead	Excellent	1	4	5	434761	7291686	5427

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_143	Dead	Fair	1	2	3	434712	7291610	330
ENV_ØRN_147	Good	Good	4	3	7	434779	7291584	1664
ENV_ØRN_150	Dead	Poor	1	1	2	434722	7291489	668
ENV_ØRN_168	Dead	Poor	1	1	2	435308	7290734	172
ENV_ØRN_169	Dead	Poor	1	1	2	435355	7290719	102
ENV_ØRN_170	Dead	Poor	1	1	2	435262	7290717	485
ENV_ØRN_171	Dead	Fair	1	2	3	435202	7290694	1012
ENV_ØRN_172	Dead	Poor	1	1	2	435277	7290690	313
ENV_ØRN_176	Dead	Not present	1	0	1	435552	7290236	648
ENV_ØRN_178	Dead	Poor	1	1	2	435484	7290213	1493
ENV_ØRN_182	Dead	Poor	1	1	2	435798	7289876	615
ENV_ØRN_183	Dead	Fair	1	2	3	435805	7289847	722
ENV_ØRN_184	Not present	Poor	0	1	1	435764	7289833	290
ENV_ØRN_185	Dead	Poor	1	1	2	435728	7289830	151
ENV_ØRN_195	Dead	Poor	1	1	2	435971	7289462	280
ENV_ØRN_202	Poor	Fair	2	2	4	436488	7289179	2947
ENV_ØRN_206	Dead	Poor	1	1	2	435998	7289124	566
ENV_ØRN_208	Dead	Fair	1	2	3	436468	7289104	1189
ENV_ØRN_209	Dead	Poor	1	1	2	436577	7289080	103
ENV_ØRN_213	Dead	Good	1	3	4	436553	7289053	1948
ENV_ØRN_218	Dead	Poor	1	1	2	436533	7289004	713
ENV_ØRN_219	Not present	Poor	0	1	1	436477	7288998	51

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_220	Not present	Poor	0	1	1	436510	7288991	50
ENV_ØRN_223	Dead	Not present	1	0	1	436476	7288979	80
ENV_ØRN_225	Dead	Fair	1	2	3	436603	7288977	1880
ENV_ØRN_229	Not present	Not present	0	0	0	436639	7288933	46
ENV_ØRN_231	Ecxellent	Fair	5	2	7	436716	7288901	618
ENV_ØRN_232	Dead	Poor	1	1	2	436611	7288896	39
ENV_ØRN_233	Dead	Poor	1	1	2	436594	7288893	85
ENV_ØRN_235	Not present	Not present	0	0	0	436684	7288889	71
ENV_ØRN_237	Dead	Poor	1	1	2	436606	7288877	56
ENV_ØRN_240	Not present	Poor	0	1	1	436675	7288858	620
ENV_ØRN_241	Dead	Poor	1	1	2	436637	7288852	41
ENV_ØRN_244	Dead	Poor	1	1	2	436551	7288840	472
ENV_ØRN_248	Not present	Fair	0	2	2	436766	7288809	555
ENV_ØRN_253	Dead	Poor	1	1	2	436723	7288782	62
ENV_ØRN_256	Poor	Poor	2	1	3	436714	7288757	70
ENV_ØRN_257	Dead	Fair	1	2	3	436729	7288752	69
ENV_ØRN_259	Poor	Fair	2	2	4	436704	7288735	349
ENV_ØRN_261	Not present	Fair	0	2	2	436793	7288723	297
ENV_ØRN_262	Dead	Not present	1	0	1	436848	7288716	145
ENV_ØRN_264	Dead	Poor	1	1	2	436850	7288683	58

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_269	Not present	Not present	0	0	0	436907	7288618	128
ENV_ØRN_271	Not present	Not present	0	0	0	436914	7288594	194
ENV_ØRN_274	Dead	Poor	1	1	2	436910	7288573	349
ENV_ØRN_285	Not present	Poor	0	1	1	435973	7288485	76
ENV_ØRN_316	Not present	Poor	0	1	1	437382	7288134	354
ENV_ØRN_321	Dead	Good	1	3	4	437292	7288106	1728
ENV_ØRN_322	Dead	Poor	1	1	2	437223	7288105	256
ENV_ØRN_332	Dead	Not present	1	0	1	437360	7288051	148
ENV_ØRN_334	Not present	Poor	0	1	1	437394	7288036	180
ENV_ØRN_350	Dead	Poor	1	1	2	437573	7287907	253
ENV_ØRN_353	Poor	Poor	2	1	3	437537	7287891	236
ENV_ØRN_380	Dead	Poor	1	1	2	436985	7287385	655
ENV_ØRN_384	Not present	Not present	0	0	0	434451	7292131	7
ENV_ØRN_385	Not present	Poor	0	1	1	432269	7295881	28
ENV_ØRN_386	Not present	Not present	0	0	0	432946	7294845	13
ENV_ØRN_387	Not present	Not present	0	0	0	433495	7293681	17
ENV_ØRN_388	Dead	Poor	1	1	2	431822	7296496	23
ENV_ØRN_389	Not present	Poor	0	1	1	432279	7295862	43
ENV_ØRN_390	Not present	Not present	0	0	0	437379	7288022	26

FEATURE NAME	Desmophyllum condition	Coral garden condition	Desmophyllum value	Coral garden value	Combined value	X ED50UTM32N	Y ED50UTM32N	Shape Area (m2)
ENV_ØRN_391	Not present	Not present	0	0	0	428737	7301847	19
ENV_ØRN_392	Not present	Poor	0	1	1	429116	7301220	1
ENV_ØRN_393	Not present	Not present	0	0	0	429528	7300561	38
ENV_ØRN_394	Not present	Poor	0	1	1	429871	7300001	10
ENV_ØRN_395	Not present	Poor	0	1	1	431169	7297886	38
ENV_ØRN_396	Dead	Poor	1	1	2	431127	7297867	27
ENV_ØRN_397	Not present	Not present	0	0	0	432222	7295880	3
ENV_ØRN_398	Not present	Poor	0	1	1	432269	7295809	18
ENV_ØRN_399	Dead	Poor	1	1	2	432385	7295756	52
ENV_ØRN_400	Dead	Poor	1	1	2	432938	7294794	86
ENV_ØRN_401	Not present	Not present	0	0	0	433514	7293792	2
ENV_ØRN_402	Not present	Not present	0	0	0	434508	7292117	3
ENV_ØRN_403	Not present	Not present	0	0	0	435312	7290664	58
ENV_ØRN_404	Poor	Not present	2	0	2	435856	7289908	122
ENV_ØRN_405	Dead	Poor	1	1	2	436607	7289028	12
ENV_ØRN_406	Not present	Not present	0	0	0	437356	7288151	3
ENV_ØRN_407	Not present	Not present	0	0	0	435500	7290276	281




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REGION II

Program region 2 - 2021

EQUINOR ASA

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Utført av:	Verifisert av:	Godkjent av:
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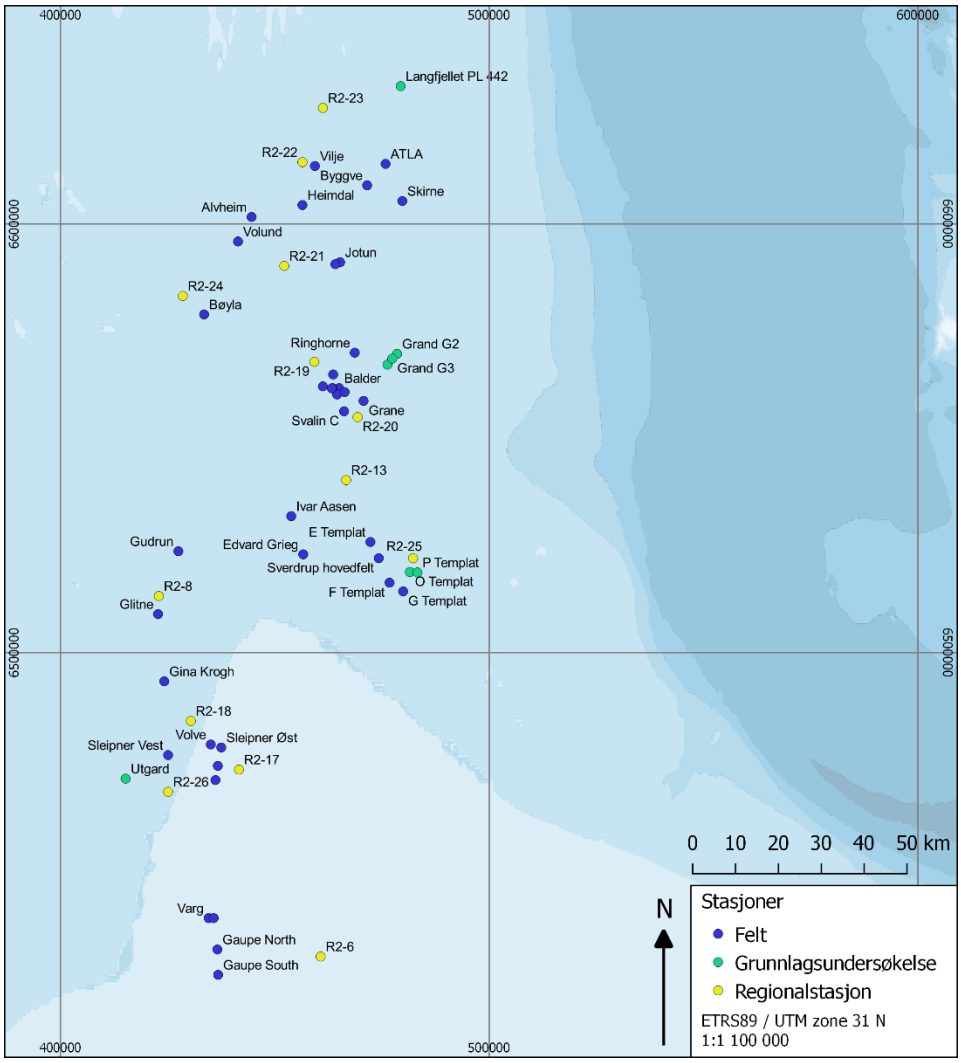
1 INNLEDNING

Region II ligger mellom 58° og 60° N på norsk sokkel i Nordsjøen. Vanndypet varierer mellom 78 og 130 meter. Hovedstrømretningene i regionen varierer; i Friggområdet mot sørøst, ved Balder mot øst/sørøst og ved Varg mot nord/nordøst.

Regional sedimentovervåking i Sleipnerområdet ble første gang gjennomført i 1997. Undersøkelsen i 2021 vil bli den åttende regionale undersøkelsen i Region II. Tidligere undersøkelser er utført av Akvaplan-niva (1997 og 2000), DNV (2012, 2015) og Uni Research (2003, 2006, 2009) og Fishguard Miljø (2018).

I 2018 ble til sammen 27 felt undersøkt, fra Gaupe Sør i sør til Langfjell i nord, samt 13 regionale stasjoner. Undersøkelsen omfattet grunnlagsundersøkelser ved Johan Sverdrup O- og P-templater, Utgard og Langfjell. Plasseringen av de ulike feltene er vist i kartet under. Tabellen viser operatører og felt/installasjoner i regionen inkludert i 2021.

Foreliggende program bygger på program utarbeidet av STIM (2019), som gjennomførte undersøkelsen i region 2 i 2018.



Figur 1-1 Oversikt over felt som inngikk i overvåkingen av Region II i 2018 (fra STIM, 2019).

Tabell 1-1 Oversikt over felt som skal undersøkes i 2021 (Fra STIM, 2019).

Operatør	Felt	Type undersøkelse 2018	Type undersøkelse i 2021	Subregion
Equinor	Sleipner Vest	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Sleipner Øst	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Grunn
	Johan Sverdrup	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Johan Sverdrup E, O, P	Grunnlagsundersøkelse	Første overvåking	Sentral
	Glitne	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Grane	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Svalin C	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Heimdal	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Volve	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Grunn
	Gudrun	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Utgard	Grunnlagsundersøkelse	Første overvåking	Sentral
	Gina Krog	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Breidablikk	Grunnlagsundersøkelse	Grunnlagsundersøkelse	Sentral
	Krafla		Grunnlagsundersøkelse	
	Oseberg K		Oppfølgende undersøkelse	Region III
	Veslefrikk		Oppfølgende undersøkelse	
	Brae			
Vår Energi	Balder	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Jotun	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Ringhorne	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
Repsol	Varg	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Grunn
Total	Byggve	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Atla	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Skirne	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
AkerBP	Bøyla	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Volund	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Alvheim	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Vilje	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Ivar Aasen	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
	Langfjell (PL 442)	Grunnlagsundersøkelse	Første overvåking	Nordlig
	Hanz	Grunnlagsundersøkelse	Grunnlagsundersøkelse	Sentral
	Jette	Ikke undersøkt		
	Skogul	Grunnlag	Første oppføgende	
Lundin	Edvard Grieg	Oppfølgende undersøkelse	Oppfølgende undersøkelse	Sentral
Spirit Energy	Vale		Oppfølgende undersøkelse	

2 METODE

2.1 Generelt

Operatørene på Norsk sokkel er pålagt å utføre miljøovervåking på norsk sokkel for å ha kunnskap om hvilke miljøeffekter deres virksomhet har eller kan få. På et overordnet nivå skal omfanget av overvåkingen stå i forhold til forventet risiko og videre kunne:

Påvise trender og resultatene som må kunne sammenliknes over tid

Gi grunnlag for prognoser for forventet utvikling

Det skilles mellom tre stasjonstyper:

Regional stasjon: Stasjon som skal være upåvirket og gjenspeile naturlig variasjon og regionale forhold og endringer. Tre regionale stasjoner skal tilordnes hvert felt og inneha tilnærmet samme karakteristikker som feltet de representerer.

Feltspesifikke grunnlagsstasjoner: Stasjoner som skal undersøkes minst i forkant av produksjonsoppstart evt også i forkant av leteboring.

Feltspesifikke overvåkingsstasjoner: Stasjoner som skal gi informasjon om tilstanden rundt installasjonene.

Hensikten med grunnlagsundersøkelser er å etablere bakgrunnsdata for de ulike parameterne, samt å gi en 'robust' gjennomsnittsverdi som basis for en eventuell lokal LSC (Limit of Significant Contamination).

En grunnlagsundersøkelse er gyldig i seks år, med mindre Miljødirektoratet i samråd med relevante faginstanser fastsetter en annen varighet.

Etter den første undersøkelsen gjennomføres overvåkingsundersøkelsene fortrinnsvis hvert tredje år, som en del av de regionale overvåkingsundersøkelsene. Endring i frekvens for en feltspesifikk overvåking skal godkjennes av myndighetene på forhånd.

Etter at produksjonsfasen er avsluttet gjennomføres det ytterligere to overvåkingsundersøkelser med tre års mellomrom. Muligheten for å legge inn stasjoner så nært som mulig til installasjonens tidligere posisjon bør vurderes.

Omfanget av de feltspesifikke overvåkingsundersøkelsene må gjenspeile resultatene fra foregående miljøundersøkelse, samt aktivitets- og utslippsnivå på de respektive felt. Det medfører at enkelte stasjoner eller analyser kan utelukkes og eventuelt nye inkluderes i samråd med Miljødirektoratet.

2.2 Gjennomføring av program

Feltarbeidet, analyser av prøver og rapportering skal utføres i hht. gjeldende retningslinjer (M300).

For innsamlingen av prøvene til sedimentologiske, kjemiske og biologiske analyser skal det brukes godkjent grabb. For å unngå forstyrrelse av sedimentoverflaten skal hastigheten på grabben ikke overstige 0,2 m/sek når den treffer sjøbunnen.

På stasjoner der bare kjemiprøver skal analyseres, inngår analyser av THC og metaller i hht. retningslinjene. NPD/PAH analyseres på utvalgte stasjoner. I tillegg skal NPD/PAH analyseres på stasjoner der innholdet av THC er over 50 mg/kg.

Prøver for analyse av kornstørrelse og TOC skal samles inn fra 0 – 5 cm sedimentdyp.

I biologiprøvene som samles inn skal sedimenthøyden eller volum av sediment registreres.

Posisjoneringen av fartøyet som brukes skal som minimum benytte differensiell GPS. Fartøyet må holdes innenfor ± 50 m på stasjonsposisjonen. Fartøyet må ha et kalibrert ekkolodd for å registrere dypet på hver stasjon.

2.3 Regionale stasjoner

Undersøkelsen for Region 2 i 2018 viste følgende:

De 13 regionale stasjonene som inngikk i overvåkingen i 2018 ansees som dekkende for disse feltene. Regionen består av tre subregioner, og de regionale stasjonene bør representere alle subregionene. I forrige undersøkelse var fordelingen slik:

Nordlig subregion: R2-23. Vale utgikk i 2018 og det ble gjort en grunnlagsundersøkelse ved Langfjell PL 442.

Grunn subregion: R2-6, R2-17, R2-26. Felt/installasjoner: Volve, Varg, Sleipner Øst, Gaupe Sør og Gaupe Nord. I 2018 utgikk Loke, Sigyn og Sleipner A.

Sentral subregion: R2-8, R2-13, R2-18, R2-19, R2-20, R2-21, R2-22, R2-24, R2-25. Felt/installasjoner: Sleipner Vest, Glitne, Grane, Byggve, Balder, Ringhorne, Jotun, Skirne, Alvheim, Heimdal, Vilje, Bøyla, Gudrun, Atla, Volund, Edvard Grieg og Johan Sverdrup. I 2018 utgikk Sleipner Alfa Nord og Jette. Følgende felt ble inkludert: Gina Krogh, Svalin C og Ivar Aasen, som alle tidligere har tilhørt sentral subregion. I tillegg kommer Grand som ligger nord-vest for Grane og antagelig i sentral subregion.

Analyseprogrammet for de regionale stasjonene er vist i tabellen under. Koordinatene er oppgitt i ED50 UTM, sone 31.

Tabell 2-1 Oversikt over regionale stasjoner i 2018. Koordinater i ED50 UTM31.

Regionale	Dyp	E	N	Bio	Korn/TOC	THC	Metaller	NPD/ PAH	Radio
R2-06	74	460684	6429120	5	1	3	3	3	
R2-08A	112	422936	6513198	5	1	3	3	3	
R2-13	119	466619	6540249	5	1	3	3	3	
R2-17	80	441623	6472715	5	1	3	3	3	
R2-18A	106	430394	6484057	5	1	3	3	3	
R2-19A-03	127	459203	6567845	5	1	3	3	3	
R2-20A	128	469297	6554935	5	1	3	3	3	
R2-21A	126	452182	6590203	5	1	3	3	3	3
R2-22A	122	456430	6614401	5	1	3	3	3	
R2-23A	112	461199	6627052	5	1	3	3	3	
R2-24	116	428522	6583192	5	1	3	3	3	
R2-25	119	482237	6522025	5	1	3	3	3	
R2-26	105	425099	6467534	5	1	3	3	3	
REG3-19[1)]		490000	6700000	5	1	3	3	3	
REG3-21[1)]		479952	6679364	5	1	3	3	3	
SUM				75	15	45	45	45	3

1) Regionale stasjoner Oseberg K og Krafla

3 FELTSPESIFIKKE PROGRAMMER

Utarbeidelse av feltspesifikke programmer er basert på veileder M300 og på følgende prinsipper generelt:

- ✓ Før produksjon bør minimum tre av de regionale stasjonene knyttes opp mot det aktuelle feltet.
- ✓ Før leteboring kan det være tilstrekkelig å inkludere kun en regional stasjon.
- ✓ Ved første overvåkingsundersøkelse på et felt, etter at boreaktiviteten er igangsatt og det har vært utslipp til sjø, bør stasjonsnettet i prinsippet være tilsvarende grunnlagsundersøkelsen.
- ✓ Både ved bruk av rutenett og aksekors bør stasjonsnettet alltid omfatte minst en stasjon i hver av de fire hovedretningene, også på felter som ikke er kjemisk kontaminert eller biologisk påvirket.
- ✓ Dersom den kjemiske kontamineringen (for Ba gjelder 2xLSC) eller den biologiske påvirkningen på et felt brer seg ut over de ytterste stasjonene, må nye stasjoner utenfor disse opprettes ved neste overvåkingsundersøkelse.
- ✓ Dersom det ikke påvises målbare effekter på biologi eller kjemi, kan stasjonsnettet reduseres ved neste sedimentundersøkelse.
- ✓ Av samme grunn, og gitt lave utslipp i mellomtiden kan det i enkelte tilfeller tillates å utvide perioden mellom undersøkelser på et felt til seks år.
- ✓ NPD, PAH og metaller bør analyseres på alle regionale stasjoner og minimum på de to nærmeste stasjonene nedstrøms, samt kontaminerte stasjoner.
- ✓ Når de to nærmeste stasjonene nedstrøms viser signifikant forhøyede verdier av THC, NPD eller PAH ved en overvåkingsundersøkelse, bør påfølgende undersøkelse inkludere NPD og PAH analyser på de innerste stasjonene langs de tre andre transektene, i tillegg til de tre stasjonene nedstrøms.
- ✓ Når de to nærmeste stasjonene nedstrøms viser signifikant forhøyede verdier i en overvåkingsundersøkelse bør påfølgende undersøkelse inkludere alle metaller på de tre stasjonene nedstrøms og de tre stasjonene som er nærmest installasjonen i de øvrige retningene.
- ✓ Dersom det ved forrige overvåkingsundersøkelse ikke ble funnet forhøyede metall-konsentrasjoner, kan disse analysene bero så fremt det ikke har vært boreaktivitet eller andre forhold av betydning for metallkonsentrasjonene i sedimentet siden forrige datainnsamling.
- ✓ Avhengig av forurensningssituasjon kan analyseprogrammet på feltspesifikke stasjoner reduseres fra og med andre overvåkingsundersøkelse
- ✓ Biologisk karakterisering gjøres på samtlige stasjoner ved grunnlagsundersøkelsen og første gangs regionale undersøkelse. I påfølgende undersøkelser bør biologisk karakterisering gjøres på regionalstasjonene og på feltstasjonene nærmest installasjonen, fortrinnsvis i avstand 250 m. Hvis feltstasjoner ved siste undersøkelse viste tegn til biologisk påvirkning eller hadde THC>50 mg/kg, bør, som et minimum, påvirkede feltstasjoner og de nærmeste upåvirkede stasjonene lenger ut på transektene undersøkes.

Det må nevnes at det har vært en avvikende praksis i forhold til veilederen de seneste årene og at dette i stor grad har blitt veiledende praksis. Det er også planlagt en oppdatering av veilederen. Den avvikende praksisen kan oppsummeres som følger:

- ✓ Fokus har vært THC-resultater. Det er ikke lagt stor vekt på barium alene, da dette ikke er toksisk og kun viser at man har borekaks tilstede (som er naturlig nært installasjonene).

- ✓ Biologi tas generelt der hvor THC har vært høy (gjerne opp mot 30-50 mg/kg eller over). Dette fordi erfaring viser oss at man må over 50 mg/kg før man ser en effekt på fauna.
- ✓ Det er foreslått biologiprøver på ekstra stasjoner, avhengig av hvor høy stasjonen innenfor var på THC sist og resultatene generelt på feltet. Her gjøres det generelt en helhetlig vurdering av resultater og eventuelle utslipp.

- ✓ Praksis i de tilfellene hvor THC er på LSC er å beholde kjemi på den aktuelle stasjonen (uten å legge en ny utenfor).
- ✓ I noen tilfeller fjernes stasjonen helt fra programmet, basert på resultatene på stasjonen innenfor (lav THC verdi) og/eller feltet som helhet.

- ✓ THC over LSC medfører ny stasjon utenfor, men kun kjemi (med mindre opprinnelig THC var veldig høy). Generelt må det gjøres en helhetlig vurdering av feltet.

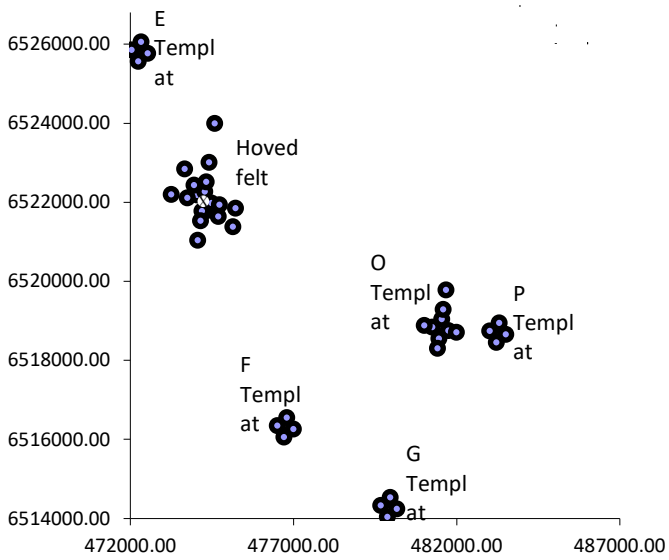
- ✓ Stasjoner med lav THC fjernes generelt, så fremt det ikke er andre resultater som skiller seg ut, f.eks. metaller, eller at det har vært mye utslipp siden sist undersøkelse.

- ✓ Enkelte bunnrammer/felt kan også fjernes helt dersom det ikke har vært aktivitet de siste årene og resultatene forrige gang var lave (på eller under LSC).
    - Dette punktet er for så vidt i tråd med M300.

3.1 Johan Sverdrup

Johan Sverdrup ligger på Utsirahøyden 155 km vest for Stavanger. Feltet bygges ut i faser, den første utgjør et feltsenter med fire plattformer. Produksjonsstart er berammet til slutten av 2019.

Johan Sverdrup tilhører den sentrale subregionen i Region 2. I 2018 ble første overvåking av hovedfeltet gjennomført, samt enkeltstasjoner på templat F og G. Disse templatene er fulgt opp med flere stasjoner i 2018. I tillegg ble det utført grunnlagsundersøkelser på templat E, O og P i 2018.



Figur 3-1 Oversikt over innbyrdes plassering av feltene ved Johan Sverdrup.

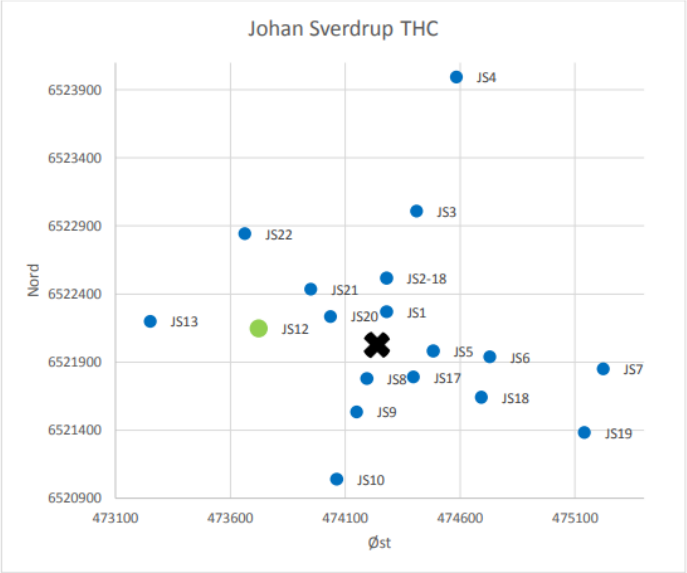
Resultater og konklusjoner fra undersøkelsen i 2018:

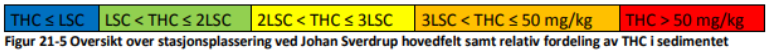
Johan Sverdrup hovedfelt

Konsentrasjonene av THC var lave og under LSC (med unntak av stasjon JS12) men høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon (11,3 mg/kg) ble funnet på stasjonen JS12, 250 m vest for feltsenteret. Det har vært en tydelig økning av THC-konsentrasjon på samtlige stasjoner, med unntak av den tilhørende regionale hvor det har vært en reduksjon. Etter undersøkelsen i 2015 er det boret 21 brønner. Konsentrasjonen av PAH og NPD var høyere på de to undersøkte stasjonene sammenlignet med tilhørende regional stasjon, og lavere enn LSC.

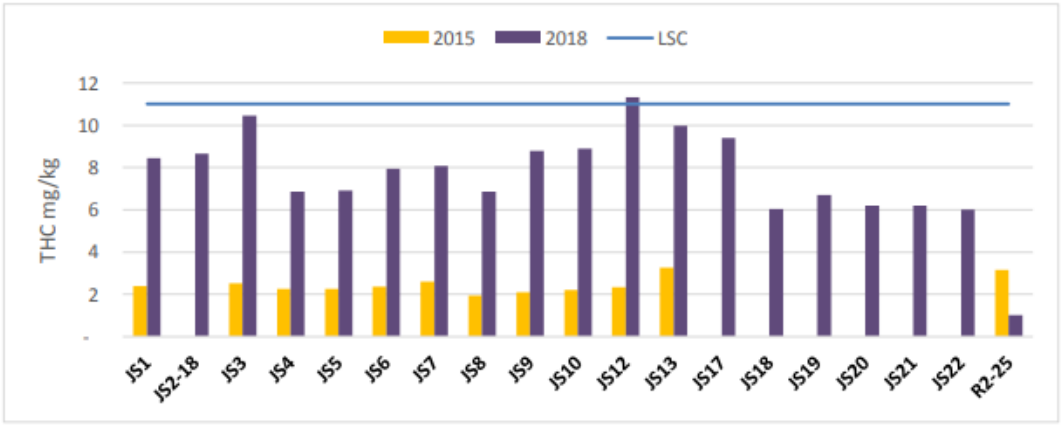
Generelt sett er konsentrasjonene av de ulike metallene i sedimentet på de feltspesifikke stasjonene relativt lik sammenlignet med tilhørende regional stasjon. For det meste lå konsentrasjonen av de ulike metallene under LSC med unntak av Ba (JS1, JS5 og JS17) og As (JS1, JS2-18, JS5, JS10, JS17 og JS19) som lå over LSC.

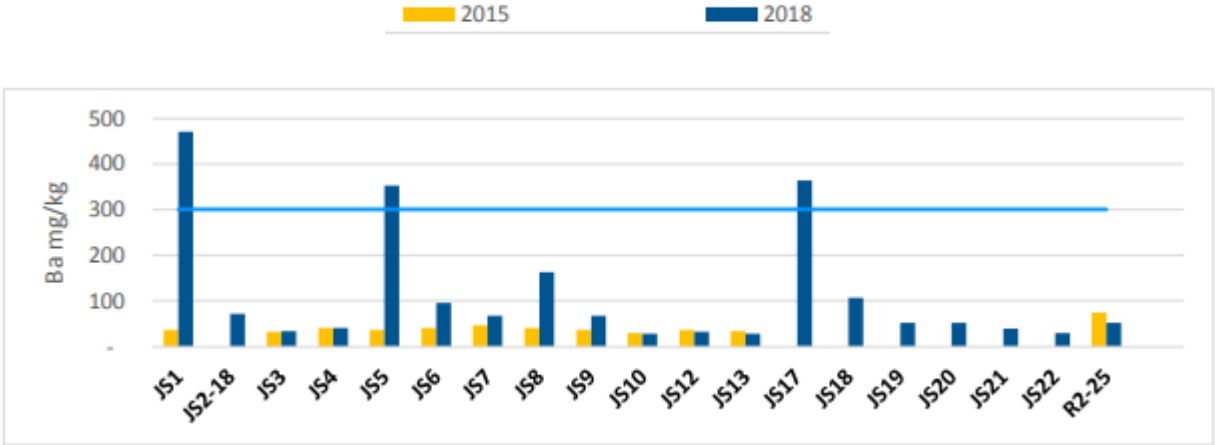
Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Johan Sverdrup Hovedfelt.





Figur 21-5 Oversikt over stasjonsplassering ved Johan Sverdrup hovedfelt samt relativ fordeling av THC i sedimentet





Figur 3-2 THC og Ba i sedimentet på JS hovedfelt. For Ba er 2*LSC markert med blå strek.

Templat E

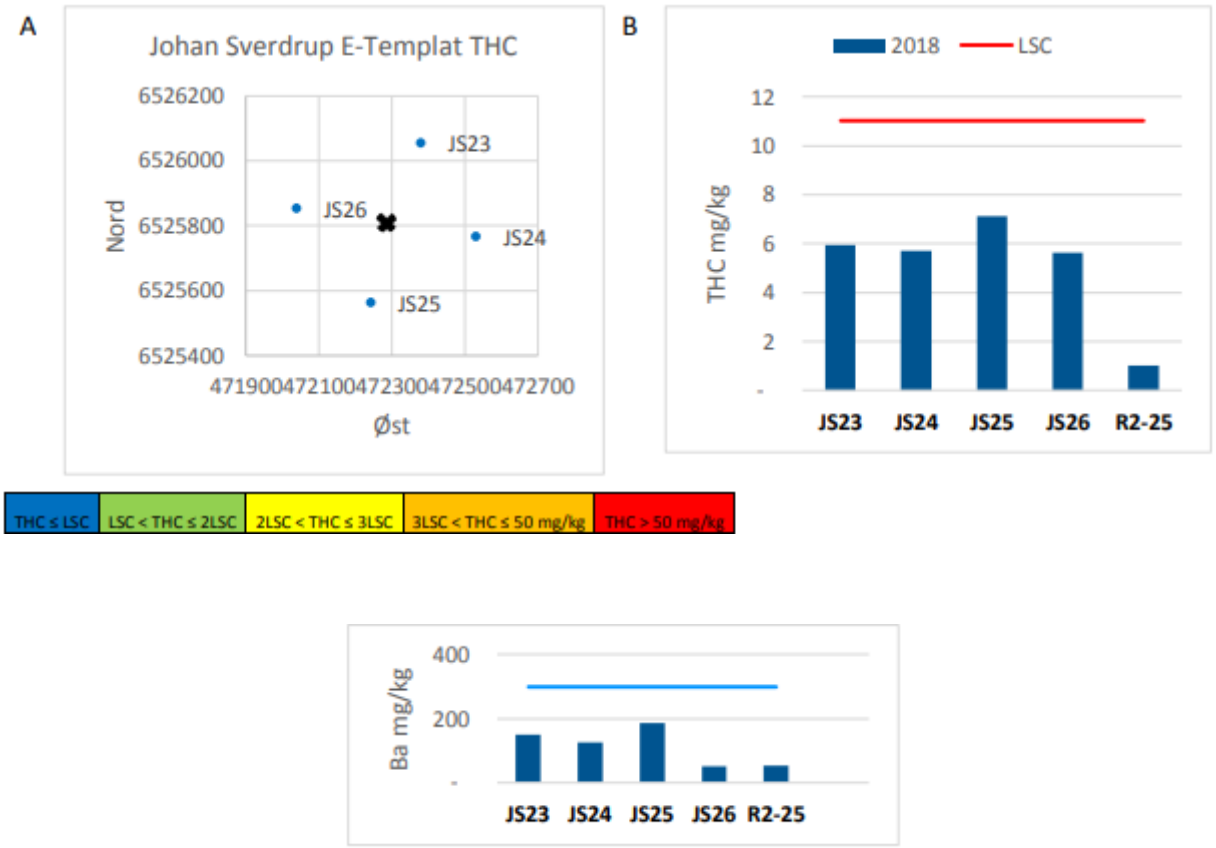
I 2018 ble sedimentet fra stasjonene tilknyttet E-Templatet definert som «svært fin sand». Undersøkelsen i 2021 blir første overvåkingsundersøkelse.

Andel totalt organisk karbon (TOC) på Johan Sverdrup E-Templat lå mellom 0,19 og 0,28 %, som er noe lavere enn på den regionale stasjonen.

Konsentrasjonene av THC lå under LSC, men høyere enn tilhørende regionalstasjon. Konsentrasjonen av PAH og NPD var høyere på de to undersøkte stasjonene sammenlignet med tilhørende regional stasjon, men lavere enn LSC.

Generelt sett er konsentrasjonene av de ulike metallene i sedimentet høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon for Ba men ellers på samme nivå. Konsentrasjonene av de ulike metallene i sedimentet er fremdeles lav og under LSC med unntak av As på stasjon JS25 og JS26 som var litt over LSC.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige stasjoner ved Johan Sverdrup E-templat.



Figur 3-3 THC og Ba i sedimentet på JS E-templat. For Ba er 2*LSC markert med blå strek.

Templat F

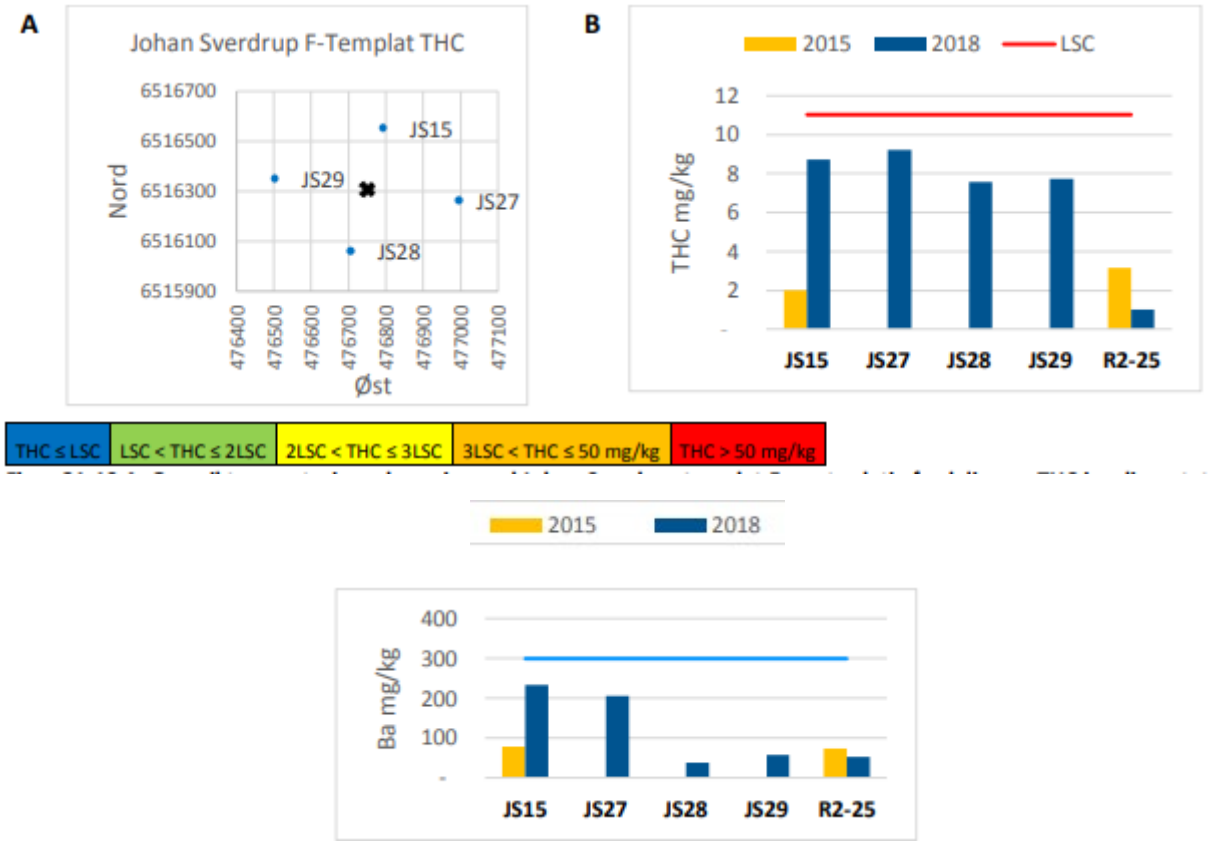
I 2018 ble sedimentet fra alle de undersøkte stasjonene karakterisert som «svært fin sand». Andelen pelitt er relativ lik på samtlige undersøkte stasjoner og har gått noe ned 250 m nord for feltsenteret (JS15) og den regionale stasjonen siden undersøkelsen i 2015.

Andel totalt organisk karbon (TOC) lå mellom 0,24 og 0,33 %, som er noe lavere på stasjon JS15 og den regionale stasjonen sammenlignet med resultatene fra 2015.

Konsentrasjonene av THC lå under LSC, men høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon (9,2 mg/kg) ble funnet på stasjonen JS27, 250 m øst for feltsenteret. Det var en økning i THC på stasjonen mot nord og en nedgang på den regionale stasjonen sett i forhold til forrige undersøkelse. Konsentrasjonene av PAH og NPD var lavere enn LSC.

Generelt sett var konsentrasjonene av de ulike metallene på de feltspesifikke stasjonene på samme nivå som tilhørende regional stasjon, med unntak av Ba som skilte seg ut med noe høyere verdier på stasjonene nord og øst for feltsenteret. Arsen hadde konsentrasjon litt over LSC 250 m mot nord. Det var en tydelig økning av Ba på JS15 og en reduksjon av Zn på R2-25, ellers lå de fleste av metallene som ble undersøkt i 2015 på omtrent samme nivå i 2018.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Johan Sverdrup F-templat.



Figur 3-4 THC og Ba i sedimentet på JS F-templat. For Ba er 2*LSC markert med blå strek.

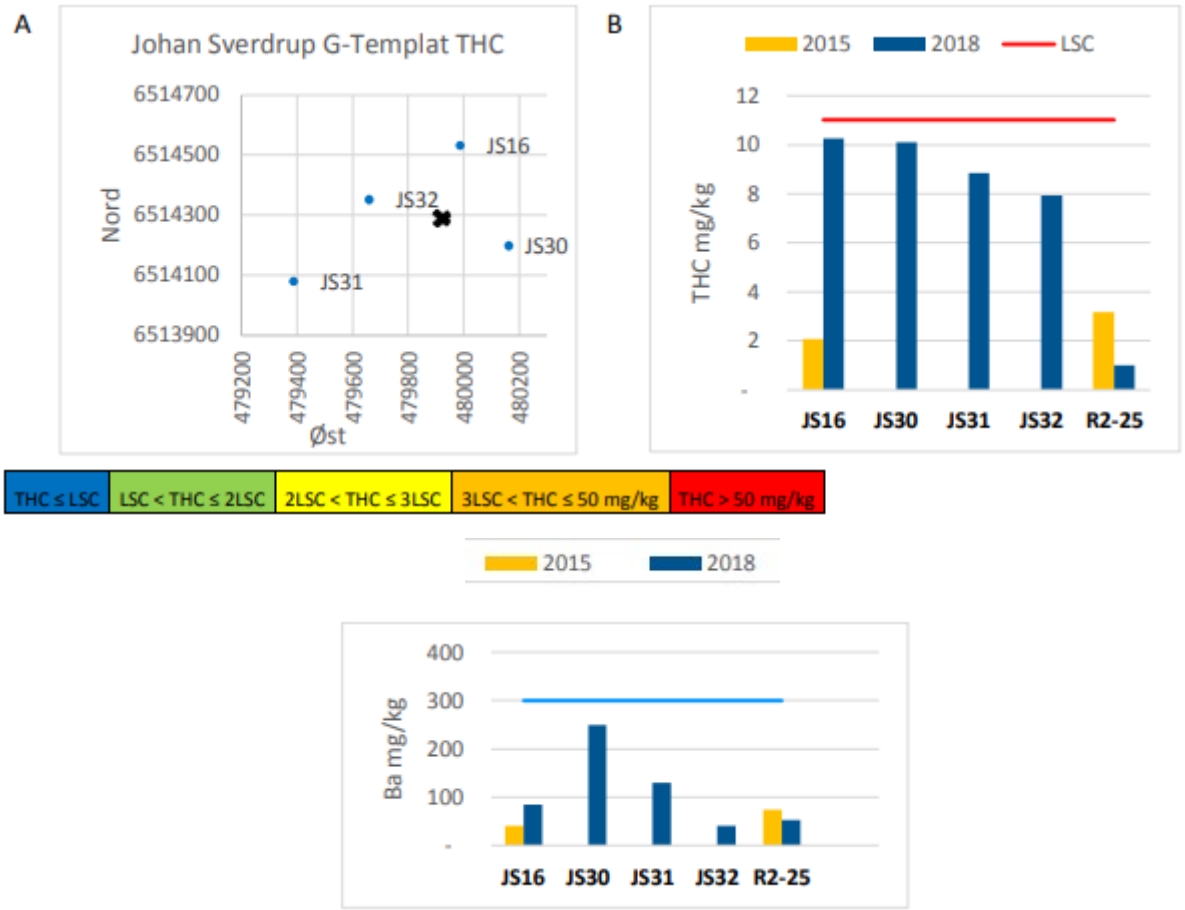
Templat G

I 2018 ble sedimentet fra stasjonene tilknyttet Johan Sverdrup Templat-G karakterisert som «svært fin sand». Andelen pelitt har økt noe på stasjon mot nordøst (JS16) og gått noe ned på den regionale stasjonen. Andel totalt organisk karbon (TOC) lå mellom 0,32 og 0,27 %, som er på nivå med resultatene fra 2015.

Konsentrasjonene av THC var lave og under LSC, men høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon (10,3 mg/kg) ble funnet på stasjon JS16, 252 m nordøst for feltsenteret. Det har vært en tydelig økning i konsentrasjonen av THC på denne stasjonen siden forrige undersøkelse samtidig som det er observert en reduksjon på den regionale stasjonen. Konsentrasjonen av PAH og NPD var lavere på den undersøkte stasjonen sammenlignet med tilhørende regional stasjon, og lavere enn LSC.

Generelt sett er konsentrasjonene av de ulike metallene lave og relativt lik mellom de feltspesifikke stasjonene og den tilhørende regionale stasjonen. Kun As var litt over LSC på tre stasjoner. Konsentrasjonen av de ulike metallene er stort sett på samme nivå som i ved forrige undersøkelse på den stasjonen hvor det foreligger historiske data.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Johan Sverdrup G-templat.



Figur 3-5 THC og Ba i sedimentet på JS G-templat. For Ba er 2*LSC markert med blå strek.

Endringer i posisjoner

Hovedfelt: JS12, JS17 og JS20 ble flyttet mindre enn 50 m, JS2 ble flyttet mer enn 50 meter og fikk nytt navn JS2-18 (se Tabell).

Tabell 3-1 Endret posisjoner i 2018 for stasjoner på Johan Sverdrup hovedfelt.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
JS2	474693	6521642	325	400	JS2-18	474280	6522517	21	525
JS12	473745	6522112	280	500	JS12	473723	6522147	283	529
JS17	474346	6521790	325	250	JS17	474396	6521791	146	283
JS20	474045	6522186	170	320	JS20	474036	6522235	316	291

Templat E: JS23 ble flyttet mindre enn 50 m.

Tabell 3-2 Endret posisjon for JS23 i forhold til originalprogram ved templat E.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
JS23	472327	6526057	10	250	JS23	472379	6526055	21	262

Templat G: Samtlige stasjoner ble flyttet mindre enn 50 meter i forhold til tidligere plassering.

Tabell 3-3 Endret posisjon i forhold til prøveprogram ved Templat G.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
JS16	479962	6514536	10	250	JS16	479987	6514532	16	252
JS30	480165	6514246	100	250	JS30	480162	6514198	111	260
JS31	479875	6514044	190	250	JS31	479388	6514079	201	226
JS32	479672	6514333	280	250	JS32	479659	6514351	283	267

Utslipp og boreaktivitet

Det har ikke vært produksjon på Sverdrup ennå. Det ble boret 21 brønner i perioden 2015-2017 med utslipp av baritt, borekaks, vannbasert borevæske og sementering- og kompletteringskjemikalier. I denne perioden var det også noe utslipp av olje i produsert vann og vannbasert borevæske. På de ulike templatene E, F, G, O og P har det ikke vært boreaktivitet.

Tabell 3-4 Utslippsdata og boreaktivitet ved Johan Sverdrup hovedfelt i perioden 2018 til 2021. Inkluderer Johan Sverdrup borerigger.

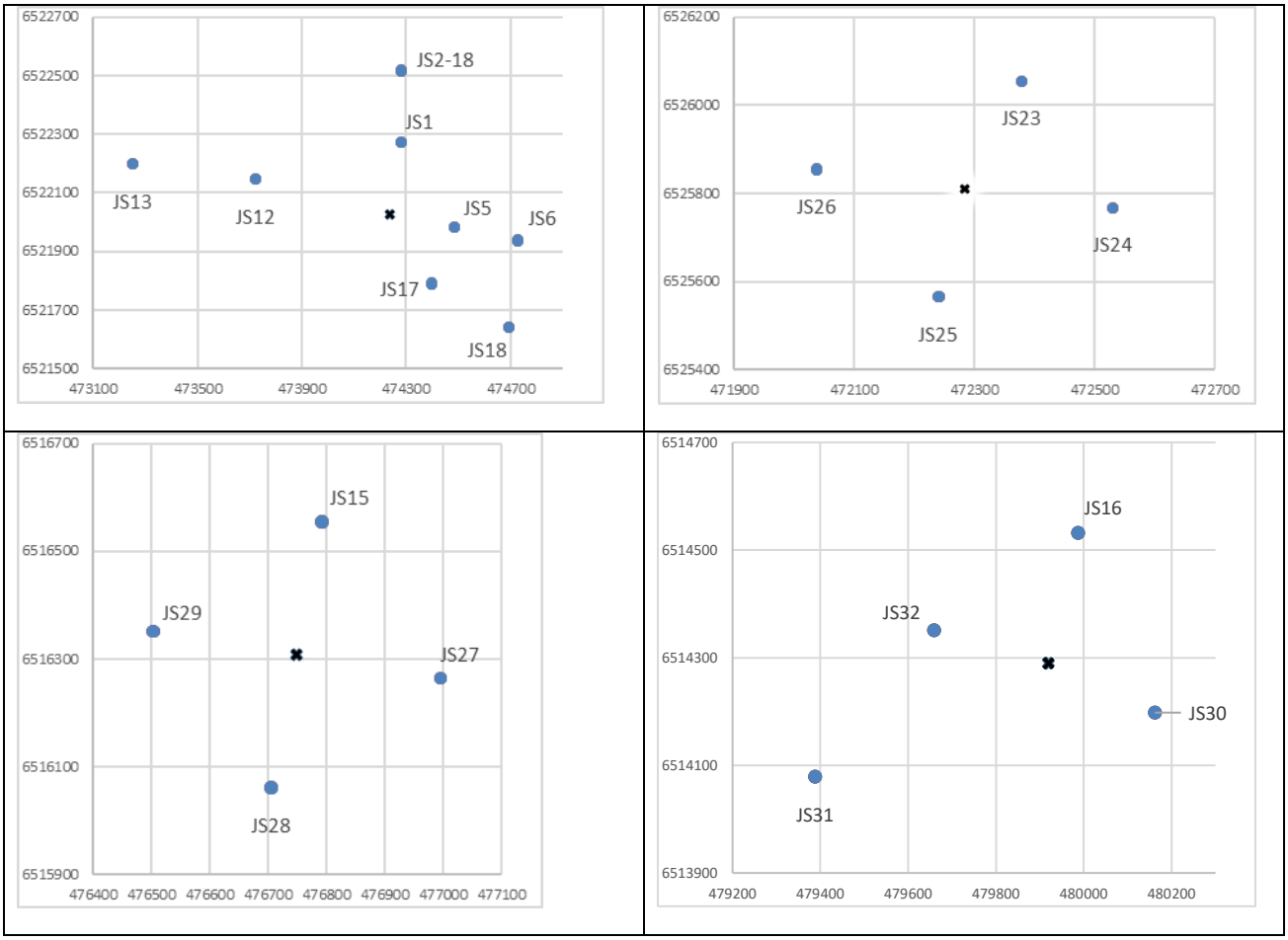
Johan Sverdrup	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	3	8	9
Utslipp (tonn)			
Baritt	495.76	468.16	475.15
Borekaks	3000.39	2284.48	11444.84
Vannbasert borevæske	2083.02	2700.94	17578.6
Sementeringskjemikalier	102.25	209.73	
Kompletteringskjemikalier	876.897	9397.06	1738.971
Olje i produsert vann/forurenset vann	0.019	0.016	0.059
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			0.238
Andre oljeutslipp/ lekkasjer			

Program 2021

Foreslått program er vist i tabellen og figuren under.

Tabell 3-5 Foreslått prøvetakingsprogram 2021. Rødfarget: stasjon utgår. Koordinater i ED50 UTM31. Rød font: Stasjon ble flyttet >50 m i 2018, blå font: Stasjon ble flyttet i 2018 men <50 m.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/	THC	Met.	NPD/
Hovedfelt			474237	6522025						
JS1	10	250	474280	6522271	115	5	1	3	3	
JS2-18	21	525	474280	6522517	115			3	3	
JS3	10	1000	474411	6523010	115					
JS4	10	2000	474584	6523995	116					
JS5	100	250	474483	6521982	116	5	1	3	3	
JS6	100	500	474729	6521938	116			3	3	
JS7	100	1000	475222	6521851	116					
JS8	190	250	474194	6521779	115					
JS9	190	500	474150	6521533	115					
JS10	190	1000	474063	6521040	115					
JS12	283	529	473723	6522147	115	5	1	3	3	3
JS13	280	1000	473252	6522199	115	5	1	3	3	3
JS17	146	283	474396	6521791	110	5	1	3	3	
JS18	325	400	474693	6521642	109			3	3	
JS19	325	1000	475141	6521382	110					
JS20	316	291	474036	6522235	109					
JS21	110	709	473950	6522435	109					
JS22	115	1180	473663	6522844	110					
E-Templat			472284	6525811						
JS23	21	262	472379	6526055	111	5	1	3	3	3
JS24	100	250	472530	6525768	111	5	1	3	3	
JS25	190	250	472241	6525565	111	5	1	3	3	
JS26	280	250	472038	6525854	111	5	1	3	3	
F-Templat			476749	6516308						
JS15	10	250	476792	6516554	108	5	1	3	3	3
JS27	100	250	476995	6516265	108	5	1	3	3	
JS28	190	250	476706	6516062	108	5	1	3	3	
JS29	280	250	476503	6516351	108	5	1	3	3	
G-Templat			479919	6514290						
JS16	16	252	479987	6514532	109	5	1	3	3	3
JS30	111	260	480162	6514198	108	5	1	3	3	
JS31	201	226	479388	6514079	109	5	1	3	3	
JS32	283	267	479659	6514351	109	5	1	3	3	
Sum						**85**	**17**	**60**	**60**	**15**



Figur 3-6 Stasjoner hovedfelt Johan Sverdrup og E-templat (øverst) og F og G templat (nederst), 2021.

3.2 Johan Sverdrup O-templat

O-Templatet er tilknyttet Johan Sverdrup og er et produksjonstemplat. Tidspunkt for oppstart av boring er ikke fastsatt. Undersøkelsen i 2018 var en grunnlagsundersøkelse og undersøkelsen i 2021 blir første overvåkingsundersøkelse. Templatet kalles også «Avaldsnes Subsea OP template» og «16/3-O».

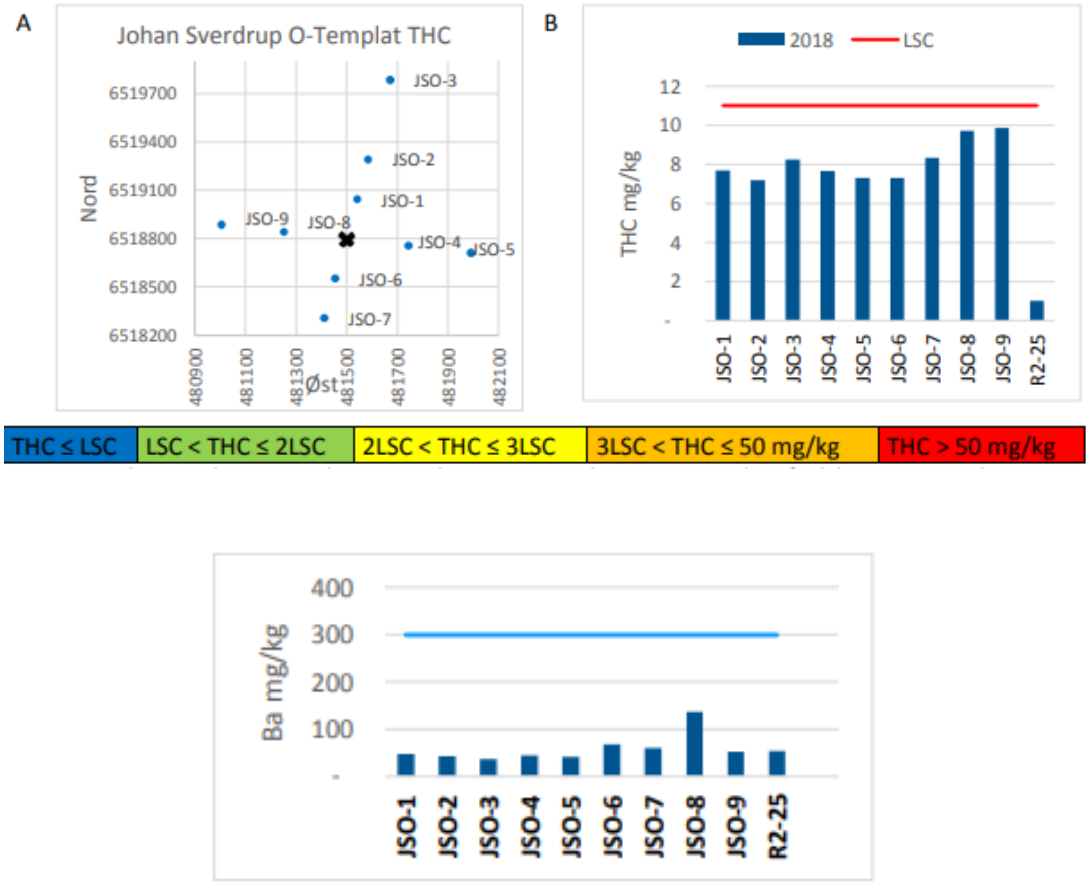
Resultater 2018

I 2018 ble sedimentet fra stasjonene tilknyttet Johan Sverdrup O-Templat karakterisert som «svært fin sand». Andel totalt organisk karbon (TOC) lå mellom 0,26 og 0,34 %.

Konsentrasjonene av THC var under LSC, men høyere enn den tilhørende regionalstasjonen. De høyeste konsentrasjonene ble funnet på stasjonene 250 m og 500 m vest for feltsenteret. Konsentrasjonen av PAH og NPD var lav og under LSC på alle de analyserte stasjonene.

Generelt sett var konsentrasjonene av de ulike metallene i sedimentet på de feltspesifikke stasjonene relativt lik med tilhørende regional stasjon. Konsentrasjonen for flesteparten av de undersøkte metallene ligger under LSC med unntak for Cd og As som hadde noen stasjoner med konsentrasjoner som lå litt over LSC.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige stasjoner ved Johan Sverdrup O-templat.



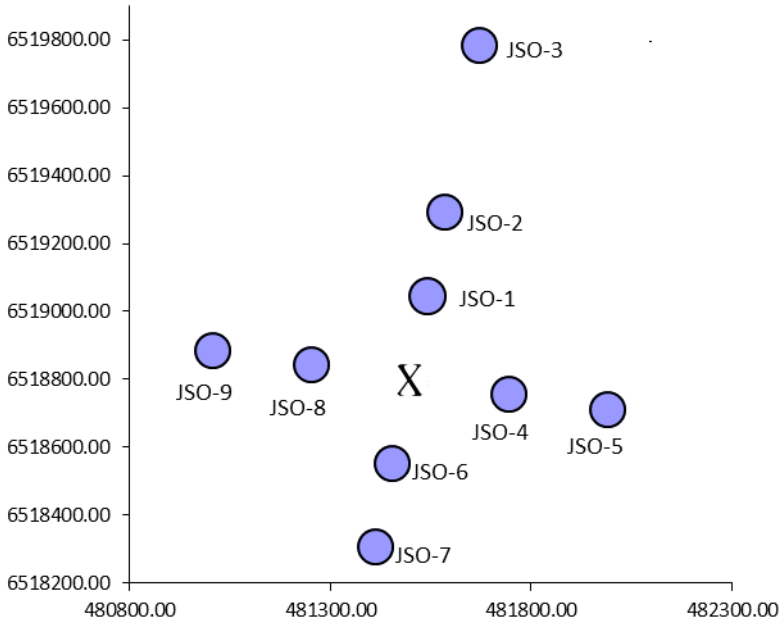
Figur 3-7 THC og Ba i sedimentet på JS O-templat. For Ba er 2*LSC markert med blå strek.

Program 2021

Ettersom det er første overvåkingsundersøkelse er det lagt opp til 9 stasjoner som i 2018.

Tabell 3-6 Foreslått prøvetakingsprogram 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/	THC	Met.	NPD/
Senter			481498	6518799						
JSO-1	10	250	481541	6519045	111	5	1	3	3	3
JSO-2	10	500	481585	6519291	111	5	1	3	3	3
JSO-3	10	1000	481672	6519784	112	5	1	3	3	3
JSO-4	100	250	481744	6518756	112	5	1	3	3	3
JSO-5	100	500	481990	6518712	112	5	1	3	3	3
JSO-6	180	250	481455	6518553	111	5	1	3	3	3
JSO-7	180	500	481411	6518307	111	5	1	3	3	3
JSO-8	280	250	481252	6518842	111	5	1	3	3	3
JSO-9	280	500	481006	6518886	111	5	1	3	3	3
Sum						**45**	**9**	**27**	**27**	**27**



Figur 3-8 Stasjoner Johan Sverdrup O-templat, 2021.

3.3 Johan Sverdrup P-templat

P-Templatet er tilknyttet Johan Sverdrup og er et vanninjeksjonstemplat. Tidspunkt for oppstart av boring er ikke fastsatt. Undersøkelsen i 2018 var en grunnlagsundersøkelse og i undersøkelsen 2021 blir første overvåkingsundersøkelse. Templatet kalles også «Avaldsnes Subsea WI-template» og «16/3-P».

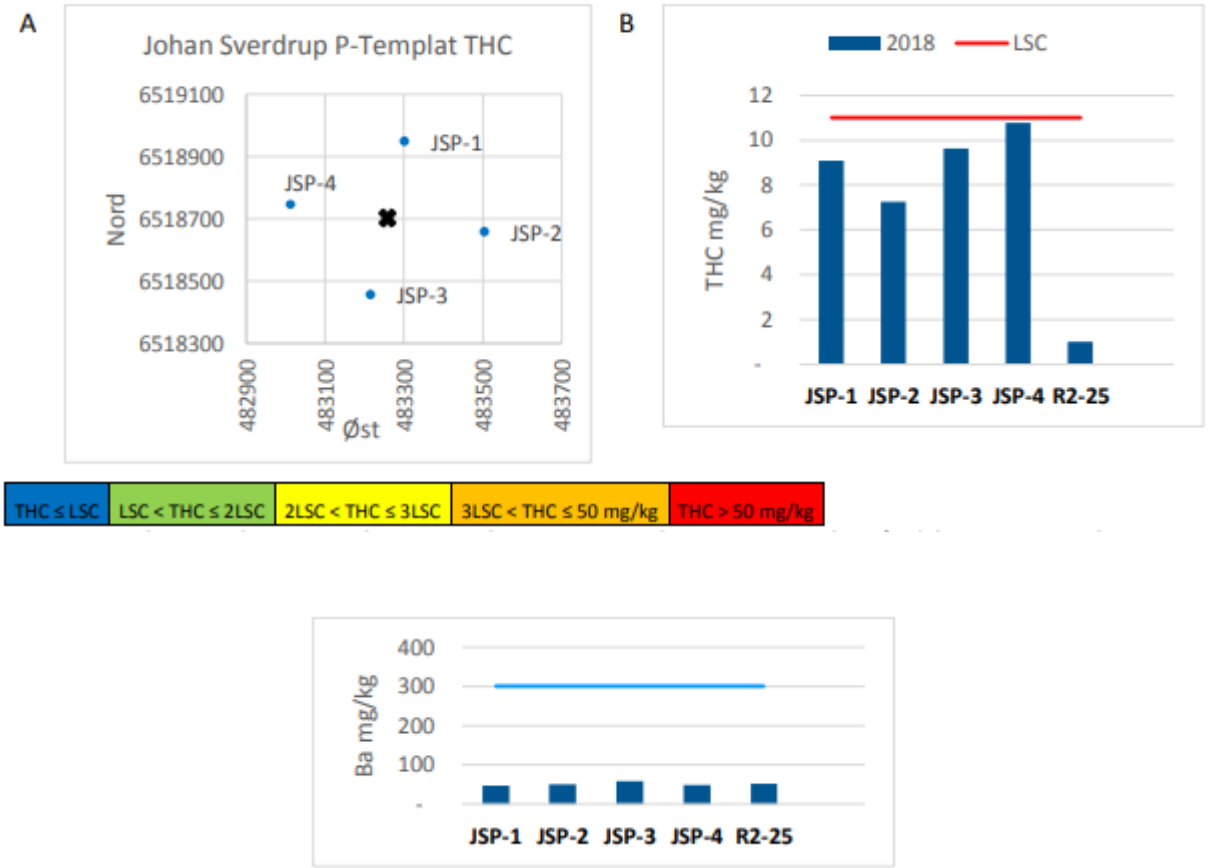
Resultater 2018

I 2018 ble sedimentet fra stasjonene tilknyttet Johan Sverdrup P-Templat karakterisert som «svært fin sand». Andel totalt organisk karbon (TOC) lå mellom 0,27 og 0,35 %.

Konsentrasjonene av THC i sedimentet lå under LSC på de undersøkte feltspesifikke stasjonene, men høyere enn den tilhørende regionalstasjonen. Konsentrasjonen av PAH og NPD var høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Konsentrasjonen av PAH var over LSC på stasjon JSP-3 og over LSC for NPD på samtlige stasjoner.

Generelt sett er konsentrasjonene av de ulike metallene i sedimentet på de feltspesifikke stasjonene lave og relativt lik tilhørende regional stasjon. Konsentrasjonene lå under LSC for alle metallene på samtlige stasjoner med unntak av As på noen stasjoner som lå litt over LSC.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige stasjoner ved Johan Sverdrup P-templat.



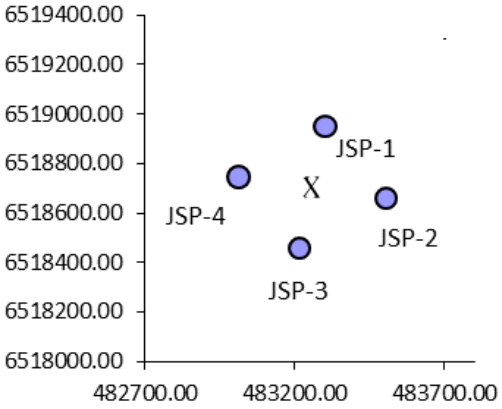
Figur 3-9 THC og Ba i sedimentet på JS P-templat. For Ba er 2*LSC markert med blå strek.

Program 2021

Siden undersøkelsen i 2021 blir den første overvåkingsundersøkelsen og verken THC eller metaller viste særlig forhøyede konsentrasjoner, så er de samme stasjonene som ble undersøkt i 2018 foreslått undersøkt i 2021.

Tabell 3-7 Foreslått prøvetakingsprogram Johan Sverdrup P-templat 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			483258	6518703						
JSP-1	10	250	483301	6518949	113	5	1	3	3	3
JSP-2	100	250	483504	6518660	113	5	1	3	3	3
JSP-3	180	250	483215	6518457	112	5	1	3	3	3
JSP-4	290	250	483012	6518746	112	5	1	3	3	3
Sum						**20**	**4**	**12**	**12**	**12**



Figur 3-10 Stasjoner Johan Sverdrup P-templat, 2021.

3.4 Gaupe

Operatør på Gaupe er AS Norske Shell. Olje og gassfeltet Gaupe (tidligere Pi) er et undervannsfelt som består av to produksjonsbrønner boret i første halvdel av 2011. Feltet er tilknyttet Armadaplattformen på britisk side. Med unntak av hydraulikkvæsker skjer alle utslipp (kjemikalier og produsert vann) fra Armadaplattformen. Gaupe Sør tilhører Region 1, mens Gaupe Nord tilhører Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Gaupe i perioden 2018-2021 er vist i tabellen under.

Tabell 3-8 Utslipp og boreaktivitet på Gaupe i perioden 2018-2021

Gaupe	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret			
Utslipp (tonn)			
Baritt			
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier			
Kompletteringskjemikalier			
Olje i produsert vann/forurenset vann			
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

3.4.1 Gaupe Nord

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var litt over LSC på stasjonene 500 m nordøst og 250 m sørvest for feltsenteret. Både PAH og NPD ble funnet i høyere konsentrasjoner på de to feltstasjonene sammenlignet med den tilhørende regionale stasjonen og over LSC. På samtlige stasjoner med unntak den som ligger 250 m mot nordvest, var konsentrasjonen av THC høyere i 2018 sammenlignet med 2015.

Generelt sett er konsentrasjonene av metaller noe høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Den høyeste konsentrasjon for samtlige metaller ble funnet på stasjonen 500 m mot nordøst. Metallkonsentrasjonene i sediment fra PI15 var høyere i 2018 sammenliknet med 2015, ellers var nivåene stort sett lavere i 2018.

Endringer i posisjoner

PI21 og PI22 ble flyttet mindre enn 50 m grunnet konflikt med installasjon på bunnen

Tabell 3-9 Endrede posisjoner i 2018 for stasjoner på Gaupe Nord.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
PI21	436450	6430557	225	250	PI21	436473	6430534	209	257
PI22	436274	6430377	225	500	PI22	436270	6430355	216	504

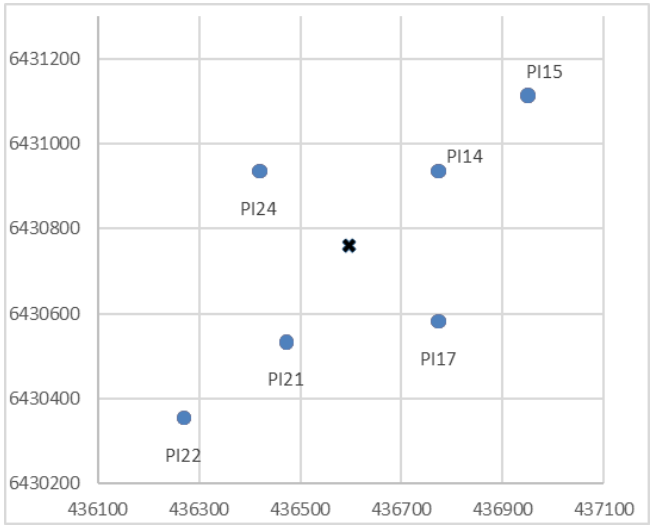
Program 2021

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår Gaupe nord fra programmet.

Basert på resultatene i 2018 og utslippshistorikk er foreslått program for 2021 som vist i tabellen og figuren under.

Tabell 3-10 Foreslått prøvetakingsprogram Gaupe Nord 2021. Blå font: stasjonen ble flyttet i 2018 men <50 m. Rødfarget: Stasjon utgår i 2021.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			436596	6430760						
PI14	45	250	436773	6430936	86					
PI15	45	500	436950	6431113	87					
PI17	135	250	436773	6430582	87					
PI18	135	500	436950	6430405	88					
PI21	209	257	436473	6430534	87					
PI22	216	504	436270	6430355	87					
PI24	315	250	436419	6430936	88					
PI25	315	500	436242	6431113	89					
Sum										



Figur 3-11 Stasjoner Gaupe Nord, 2021.

3.4.2 Gaupe Sør

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var lavere enn LSC, men litt høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon ble funnet 250 m sørvest for feltsenteret. Stasjonene undersøkt for NPD og PAH mot sørøst hadde nivåer noe over LSC.

Konsentrasjonene av metaller var noe høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Enkelte stasjoner har verdier av bly og krom over LSC, mens arsen har verdier over LSC på samtlige stasjoner.

Generelt sett har konsentrasjonene av metaller sunket, mens konsentrasjonene av THC har hatt en svak økning på de undersøkte stasjonene i perioden 2015 til 2018.

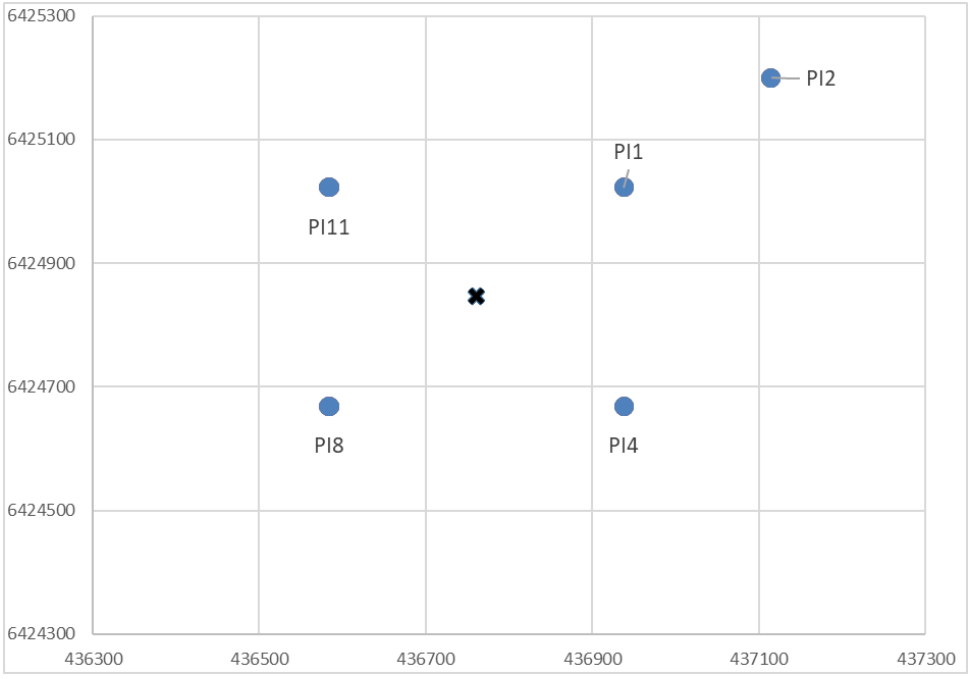
Program 2021

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår Gaupe sør fra programmet.

Basert på resultatene i 2018 og utslippshistorikk foreslås programmet i 2021 som vist i tabellen og figuren under.

Tabell 3-11 Foreslått prøvetakingsprogram Gaupe Sør 2021. Rødfarget: Stasjon utgår i 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Dyp	Øst	Nord	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
PI1	45	250	86	436761	6424846					
PI2	45	500	86	436938	6425023					
PI4	135	250	85	437115	6425200					
PI5	135	500	85	436938	6424669					
PI8	225	250	85	437115	6424492					
PI9	225	500	85	436584	6424669					
PI11	315	250	86	436407	6424492					
PI12	315	500	87	436584	6425023					
Sum										



Figur 3-12 Stasjoner Gaupe Sør, 2021.

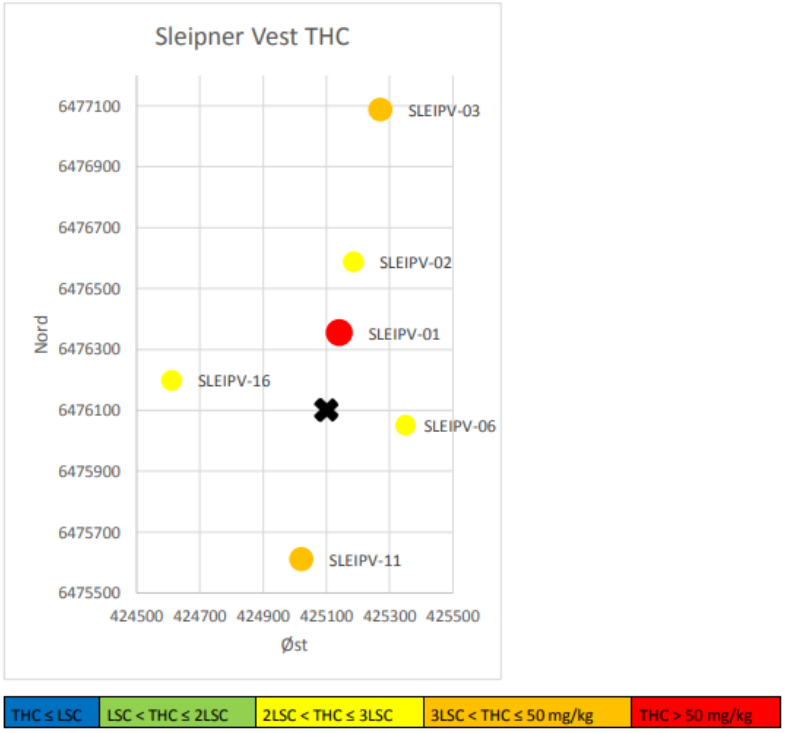
3.5 Sleipner Vest

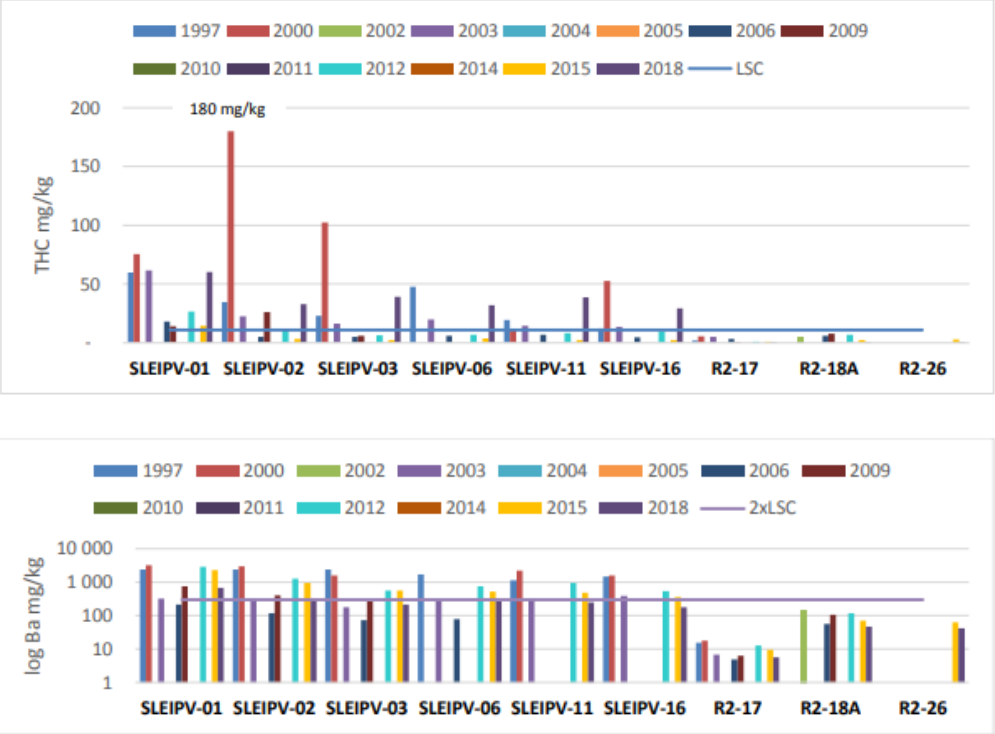
Operatør på Sleipner Vest er Equinor. Det skal gjennomføres ordinær overvåkingsundersøkelse ved Sleipner Vest. Sleipner Vest ligger i blokk 15/6, i den sørvestlige delen av Region II. Produksjonen på feltet startet i 1996. Sleipner Vest er bygget ut med to plattformer; brønnhodeplattformen Sleipner B og gassbehandlingsplattformen Sleipner T, samt bunnrammen Alfa Nord. Boreoperasjoner skjer på Sleipner B og tidligere også på Alfa Nord. Brønnstrøm sendes så videre til behandlingsplattformen Sleipner T for prosessering hvor det ikke foregår boring. Utslipp av produsert vann skjer fra Sleipner T.

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC for alle de feltspesifikke stasjonene, og høyere enn ved de tilhørende regionalstasjonene. Sett i forhold til forrige undersøkelse ble det observert en økning i konsentrasjonen av THC i sedimentet på samtlige av de feltspesifikke stasjonene, sannsynligvis grunnet boring av nye brønner i 2017 og 2018. Konsentrasjonen av PAH var høyere enn LSC på stasjon SLEIPV-01 og under LSC på de øvrige undersøkte stasjonene. Konsentrasjonene av NPD var over LSC for alle de feltspesifikke stasjonene og lavere enn LSC på de regionale stasjonene.

Generelt sett er konsentrasjonene av de undersøkte metallene høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regionale stasjonene. De høyeste konsentrasjonene ble funnet på stasjonene nord-nordøst for feltsenteret. Det er observert en tydelig reduksjon av barium i sedimentet ved Sleipner Vest.





Figur 3-13 THC og Ba i sedimentet på Sleipner vest. For Ba er 2*LSC markert med lilla strek.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Sleipner Vest siden forrige undersøkelse er vist i tabellen under.

Tabell 3-12 Utslippsdata og boreaktivitet Sleipner Vest i perioden 2018 til 2021 (Sleipner B, T og Sleipner vest borerigger).

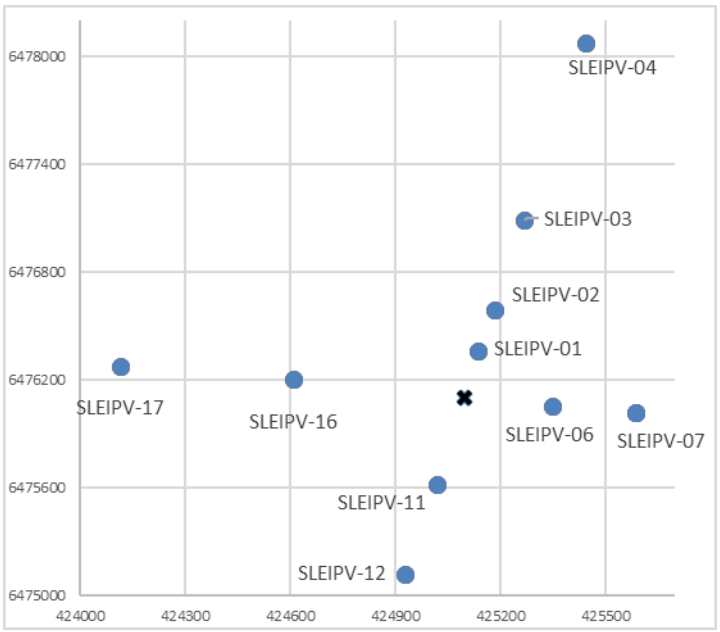
Sleipner Vest	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	1		
Utslipp (tonn)			
Baritt	0		
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier	2.28		
Kompletteringskjemikalier	0		
Olje i produsert vann/forurenset vann	0.13	0.25	0.86
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

Program 2021

Basert på resultater i 2018 og utslippshistorikk foreslås et program i 2021 som vist i tabellen og figuren under.

Tabell 3-13 Foreslått prøvetakingsprogram Sleipner Vest 2021. Grønn farge: Stasjon tas inn i 2021.

Stasjon	Retn.	Avst.		Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			425099 6476101						
SLEIPV-1	10	250	425140 6476355	105	5	1	3	3	3
SLEIPV-2	10	500	425185 6476588	105	5	1	3	3	3
SLEIPV-3	10	1000	425271 6477088	105	5	1	3	3	3
SLEIPV-4	10	2000	425446 6478071	110			3	3	
SLEIPV-6	100	250	425350 6476050	106	5	1	3	3	3
SLEIPV-7	100	500	425592 6476014	109			3	3	
SLEIPV-11	190	500	425021 6475611	105	5	1	3	3	3
SLEIPV-12	190	1000	424926 6475116	109			3	3	
SLEIPV-16	280	500	424611 6476198	106	5	1	3	3	3
SLEIPV-17	280	1000	424114 6476275	110			3	3	
Sum					**30**	**6**	**30**	**30**	**18**



Figur 3-14 Stasjoner Sleipner Vest, 2021.

3.6 Sleipner Øst

Operatør på Sleipner Øst er Equinor. Sleipner Øst ligger i blokk 15/9 og består av Sleipner A plattformen (SLA/SLEIPA) og de to brønnrammene Loke (LOK) og Sleipner Øst (SLE/SLØ). Produksjonen ved Sleipner Øst startet i 1993. Sleipner Øst tilhører den grunne subregionen i region 2. Sleipner Øst templatet ble plugget i 2015.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Sleipner øst siden forrige undersøkelse er vist i tabellen under.

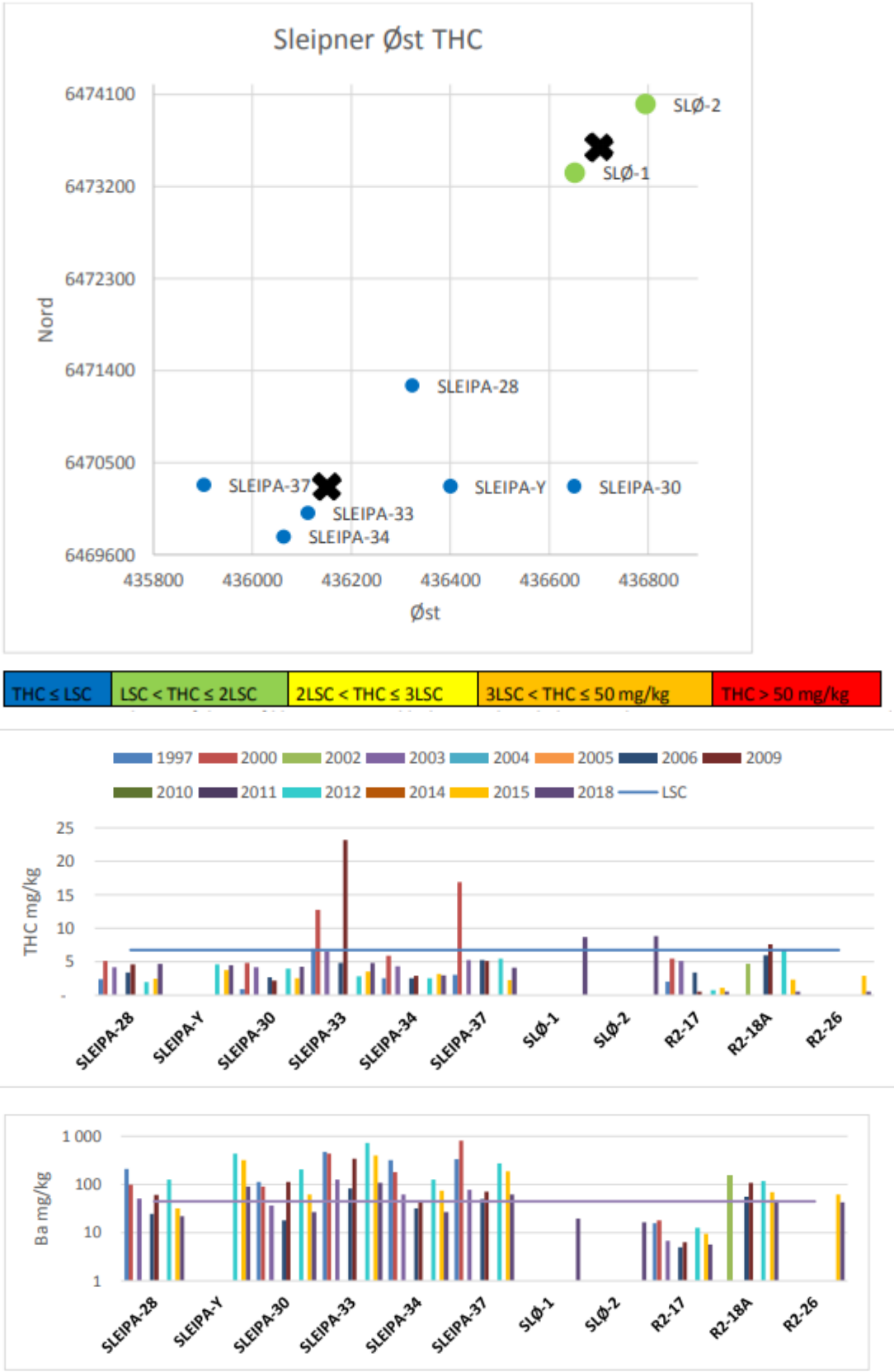
Tabell 3-14 Utslippsdata og boreaktivitet Sleipner Øst i perioden 2018 til 2021.

Sleipner Øst	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret			
Utslipp (tonn)			
Baritt			
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier			
Kompletteringskjemikalier			
Olje i produsert vann/forurenset vann	0.91	0.61	0.55
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer	0.008		

Resultatene fra undersøkelsen i 2018

Konsentrasjonene av THC var lave, men høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon ble funnet 250 m nordøst for feltsenteret Sleipner Øst. Selv om det ikke er boret brønner etter 2015 er det observert en økning av THC på de fleste stasjonene siden forrige undersøkelse. Det er likevel kun stasjonene rundt feltsenteret Sleipner Øst som overstiger LSC.

Den høyeste konsentrasjonen av de fleste analyserte metaller ble funnet på stasjonen 262 m sørvest av feltsenteret Sleipner A. LSC ble oversteget for barium (2xLSC) og arsen på flere stasjoner. Konsentrasjonen av barium, kobber, sink og kvikksølv har sunket siden forrige undersøkelse, mens kadmium har økt noe i samme periode.



Figur 3-15 THC og Ba i sedimentet på Sleipner øst. For Ba er 2*LSC markert med lilla strek.

Posisjonsendringer

SLEIPA-33 og SLEIPA-37 ble flyttet mindre enn 50 m.

Tabell 3-15 Endret posisjoner i 2018 for stasjoner på Sleipner Øst.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
SLEIPA-33	436106	6470025	190	250	SLEIPA-33	436112	6470011	187	262
SLEIPA-37	435903	6470314	280	250	SLEIPA-37	435902	6470285	273	249

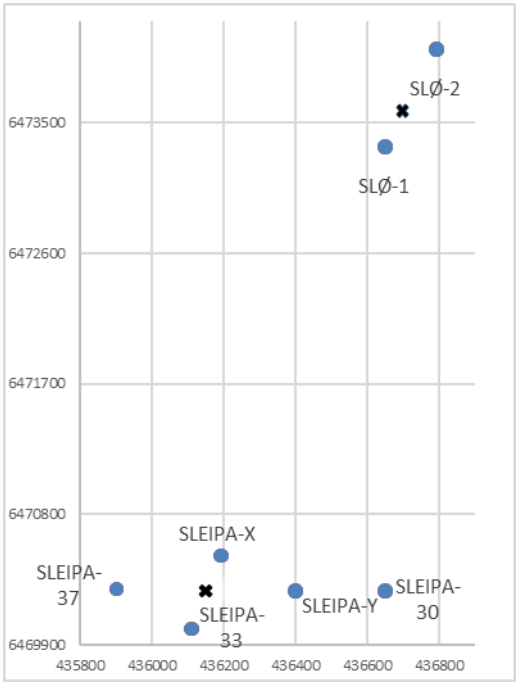
Program 2021

Basert på resultatene fra undersøkelsen i 2018 og utslippshistorikk er det foreslått et program som vist i tabellen og figuren under. Det er foreslått å undersøke de samme stasjonene ved SLØ og alle 250 meters stasjonene ved SLEIPA i tillegg til 500 m mot øst.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår biologiprøver fra programmet.

Tabell 3-16 Foreslått prøvetakingsprogram Sleipner Øst 2021. Grønn farge: Stasjon tas inn i 2021. Rød farge: Stasjon utgår. Blå font: Stasjon flyttet <50 i 2018. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Sleipner Ø			436699	6473583						
Sleipner A			436150	6470271						
SLEIPA-28	10	1000	436323	6471256	83					
SLEIPA-X*	10	250	436193	6470517				3	3	
SLEIPA-Y	90	250	436400	6470271	82			3	3	3
SLEIPA-30	90	500	436650	6470271	84			3	3	3
SLEIPA-33	187	262	436112	6470011	84			3	3	
SLEIPA-34	190	500	436063	6469779	84					
SLEIPA-37	273	249	435902	6470285	84			3	3	
SLØ-1	190	250	436651	6473335	79			3	3	
SLØ-2	13	435	436794	6474007	80			3	3	
Sum								**21**	**21**	**6**



Figur 3-16 Stasjoner Sleipner Øst, 2021.

3.7 Glitne

Operatør på Glitne er Equinor. Glitne ligger i blokk 15/5, i den vestlige delen av Region II. Produksjonen på feltet startet i 2001, men er nå avsluttet.

Utslipp og boreaktivitet
Feltet er nedstengt.

Resultater og konklusjoner fra undersøkelsen i 2018
Konsentrasjonene av THC var litt over LSC på samtlige av de feltspesifikke stasjonene og høyere enn tilhørende regionalstasjon som var under LSC. Det ble kun funnet konsentrasjoner av PAH og NPD over LSC ved Glitne senter. Siden forrige undersøkelse observeres det en liten økning i konsentrasjonene av THC ved alle de feltspesifikke stasjonene, mens konsentrasjonen har gått noe ned ved regionalstasjonen.

Det ble kun funnet konsentrasjoner over LSC av metallene Cr og Zn på stasjon Glitne senter og på to stasjoner for arsen. Alle de øvrige målingene var under LSC. Generelt sett har konsentrasjonen av de fleste av metallene gått noe ned siden forrige undersøkelse på samtlige undersøkte stasjoner.

Program 2021

Feltet er nedstengt og har gjennomgått to undersøkelser etter stenging. Videre overvåking på Glitne er ikke nødvendig iht. avtale med Miljødirektoratet.

3.8 Grane

Operatør på Grane er Equinor. Grane ligger i blokk 25/12. Produksjonen på feltet kom i gang i 2003. Feltet ble tidligere kalt Hermod. Grane tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Grane er vist i tabellen under.

Tabell 3-17 Utslippsdata og boreaktivitet Grane i perioden 2018 til 2021.

Grane	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	13	13	9
Utslipp (tonn)			
Baritt	3065.46	603.99	295.22
Borekaks	2435.03	1743.74	937.59
Vannbasert borevæske	8802.21	2878.49	946.99
Sementeringskjemikalier	145.489	8.606423	
Kompletteringskjemikalier	0		
Olje i produsert vann/forurenset vann	26.79	17.87	9.63
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer	0.04	0.15	0.0015

Posisjonsendringer

Stasjonene GRA4, GRA10, GRA11 og GRA12 ble flyttet mindre enn 50 m i 2018.

Tabell 3-18 Endrede posisjoner i 2018 for stasjoner på Grane.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
GRA4	471104	6558476	110	500	GRA4	471081	6558488	120	453
GRA10	470959	6558716	90	250	GRA10	470972	6558711	91	283
GRA11	470593	6558484	200	250	GRA11	470584	6558491	205	249
GRA12	470523	6558237	200	500	GRA12	470550	6558229	196	507

Resultater og konklusjoner fra undersøkelsen i 2018

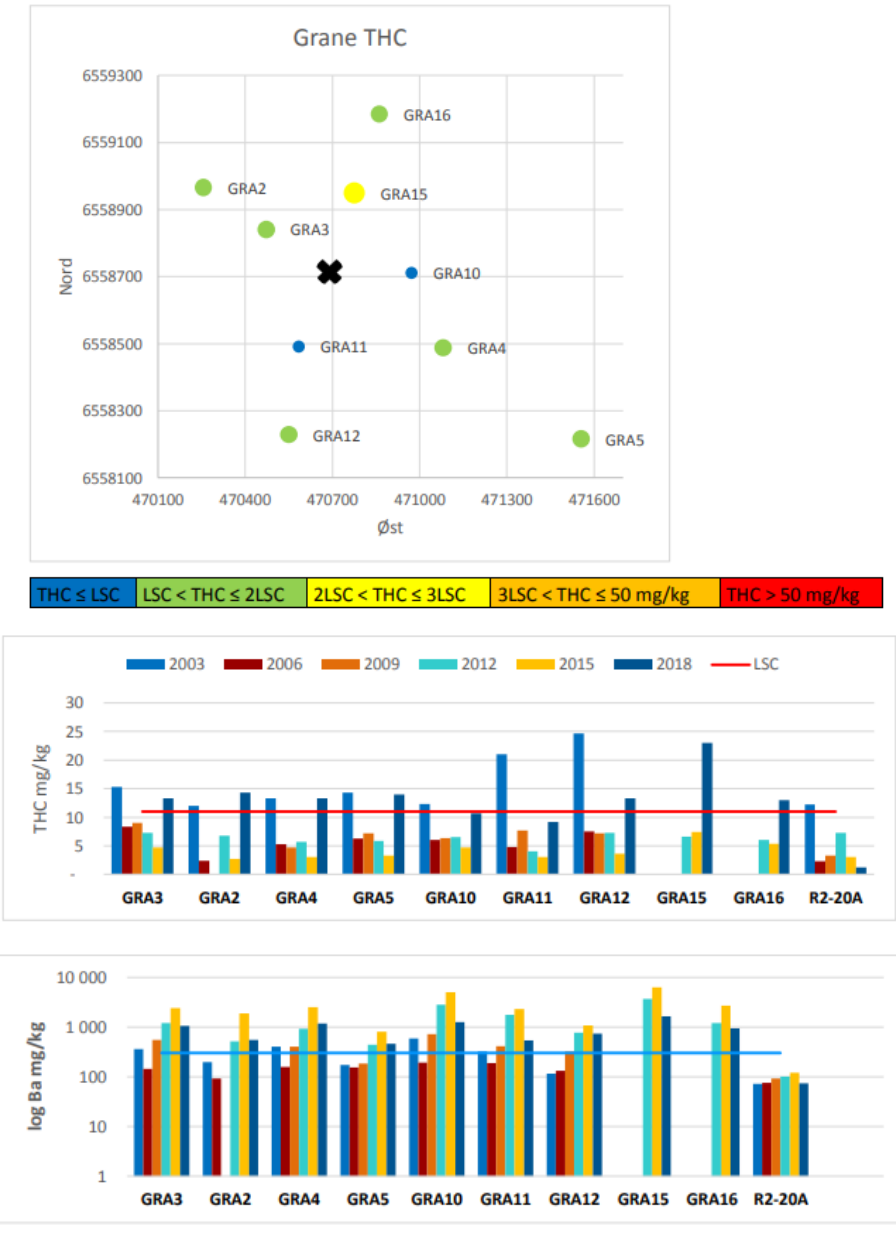
Konsentrasjonene av THC var over LSC for samtlige feltspesifikke stasjoner med unntak av GRA10 og GRA11. Høyeste konsentrasjon (23 mg/kg) ble funnet på stasjonen GRA15, 250 m nord for feltsenteret. Det har vært en tydelig økning i konsentrasjonen av THC i sedimentet siden forrige undersøkelse på samtlige stasjoner, sannsynligvis grunnet utslipp i perioden fra 2015 til 2018. Konsentrasjonen av PAH og NPD var høyere på de tre undersøkte stasjonene sammenlignet med tilhørende regional stasjon, og høyere enn LSC.

Generelt sett er konsentrasjonene høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Samtlige stasjoner har konsentrasjon av Ba over LSC. AS er også over LSC for samtlige stasjoner med unntak av GRA11, som ligger sør for feltsenteret. Enkelte stasjoner har også

konsentrasjoner av Pb, Zn, Hg og Cu som ligger over LSC. Siden forrige undesøkelse er det en reduksjon i konsentrasjonene av Ba i sedimentet på samtlige stasjoner. Det er ellers lite endringer, med unntak av stasjon GRA15 hvor det observeres en økning i konsentrasjonene av alle metallene med unntak av Ba. Denne stasjonen skiller seg dermed ut med økninger i innhold av både THC og metaller.

Antall arter er om lag på samme nivå som ved sist undersøkelse, men en reduksjon i individtetthet ved samtlige stasjoner har resultert i en høyere diversitet ved stasjonene i 2018 enn i 2012 og 2015. Den tilknyttete regionalstasjonen synes å følge det samme mønsteret som de feltspesifikke stasjonene. Det antas at dette skyldes naturlige svingninger, og resultatene fra bunndyrsanalysene indikerer en uforstyrret fauna på stasjonene ved Grane.

Sedimentet fra de undersøkte stasjonene ved Grane hadde radioaktivitet som var lavere eller på nivå med regionalstasjonen R2-21A.



Figur 3-17 THC og Ba i sedimentet på Grane. For Ba er 2*LSC markert med blå strek.

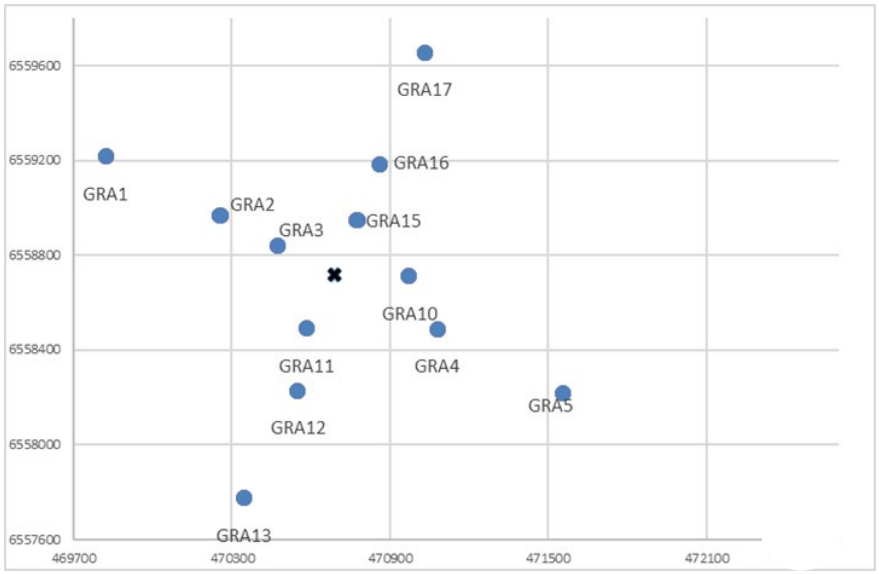
Program 2021

Det har vært boret 35 brønner i siste 3-årsperiode med tilhørende utslipp. THC var over LSC på de fleste stasjonene. Barium lå over 2xLSC på samtlige undersøkte stasjoner i tillegg til noen metaller på noen av stasjonene. Det er foreslått lagt til nye ytterstasjoner i alle retninger. Det har vært utslipp av en del sementeringskjemikalier. Dersom disse inneholder prioriterte eller vannregionspesifikke forbindelser, bør det vurderes om disse skal inkluderes i analysene i egnet matriks.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår 2000 m stasjonen (GRA6) fra programmet.

Tabell 3-19 Foreslått prøvetakingsprogram Grane 2021. Blå font: stasjonen ble flyttet i 2018 men <50 m. Alle koordinater i ED50 UTM31.

Grane	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH	Radio
Senter			470690	6558716							
GRA3	290	250	470472	6558841	129	5	1	3	3		3
GRA2	300	500	470256	6558966	128			3	3		3
GRA1	300	1000	469823	6559216				3	3		3
GRA4	120	453	471081	6558488	128			3	3	3	
GRA5	110	1000	471555	6558216	128			3	3		
GRA10	91	283	470972	6558711	128	5	1	3	3	3	
GRA11	205	249	470584	6558491	128	5	1	3	3		3
GRA12	196	507	470550	6558229	128			3	3		3
GRA13	200	1000	470348	6557776				3	3		3
GRA15	20	250	470775	6558950	127	5	1	3	3		3
GRA16	20	500	470861	6559185	128			3	3		3
GRA17	20	1000	471032	6559655				3	3		3
Sum						**20**	**4**	**36**	**36**	**6**	**27**



Figur 3-18 Stasjoner Grane, 2021.

3.9 Svalin C

Svalin ligger i Region 2 sørvest for Granefeltet i Nordsjøen. Operatør er Equinor. Vanndybden i området er omtrent 120 meter. Svalin er bygget ut med en flergrensbrønn boret fra Graneplattformen (Svalin M), og med en havbunnsinnretning knyttet til Grane (Svalin C). Brønnstrømmen blir prosessert på Grane og den prosesserte oljen blir transportert i rørledning til Stureterminalen for lagring og eksport. Produksjon startet fra Svalin M i mars 2014 og fra Svalin C i september 2014.

Utslipp og Boreaktivitet

Utslipp og boreaktivitet på Svalin C er vist i tabellen under.

Tabell 3-20 Utslippsdata og boreaktivitet Svalin C i perioden 2018 til 2021.

Svalin C	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC på samtlige stasjoner 250 meter fra feltsenteret, på stasjonen 500 meter mot nordvest var konsentrasjonen av THC så vidt under LSC. Det har vært over en dobling av THC-konsentrasjon på samtlige stasjoner med unntak av stasjonen 250m m mot nordvest hvor de kun ble observert en liten økning. Konsentrasjonen av NPD og PAH var under LSC for samtlige undersøkte stasjoner.

Konsentrasjonen av de ulike metallene i sedimentet var kun over LSC for Ba (250 m mot sørøst), Cu (250 m mot NV) og As (250 m mot nordøst, nordvest og sørøst). Konsentrasjonene av metaller var stort sett høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Foruten en tydelig reduksjon i innholdet av Ba på to av stasjonene og en generell reduksjon i konsentrasjonen av Hg på tre av stasjonene ble det kun observert små variasjoner i konsentrasjonen av de ulike metallene sett i forhold til forrige undersøkelse.



Figur 3-19 THC og Ba i sedimentet på Svalin C. For Ba er 2*LSC markert med blå strek.

Program 2021

Det har ikke vært boring eller utslipp ved Svalin C i siste 3-årsperiode. THC lå litt over LSC i tre retninger og var 21,7 mg/kg mot sørøst, hovedstrømretningen. Det er foreslått lagt til en stasjon i hovedstrømretningen og tatt ut en stasjon i nordvestlig retning.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår biologiprøver fra programmet.

Tabell 3-21 Foreslått prøvetakingsprogram Svalin C 2021. Alle koordinater i ED50 UTM31. Rød: Stasjon utgår i 2021.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			466150	6556300						
SVA1	45	250	466327	6556477	120			3	3	
SVA4	135	250	466327	6556123	120			3	3	3
SVA5	135	500	466504	6555946				3	3	3
SVA8	225	250	465973	6556123	118			3	3	
SVA11	315	250	465973	6556477	119			3	3	
SVA12	315	500	465796	6556654	118					
Sum								**15**	**15**	**6**



Figur 3-20. Stasjoner Svalin C, 2021.

3.10 Heimdal

Operatør er Equinor. Heimdal ligger i blokk 25/4 og tilhører den sentrale subregionen i region 2. Produksjonen på feltet startet i 1985.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Heimdal er vist i tabellen under.

Tabell 3-22 Utslippsdata og boreaktivitet for Heimdal i perioden 2018-2021.

Heimdal	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	13
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	15.46
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0.32	0.20	0.41
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Posisjonsendringer

HEIM-03-03 ble flyttet mindre enn 50 m.

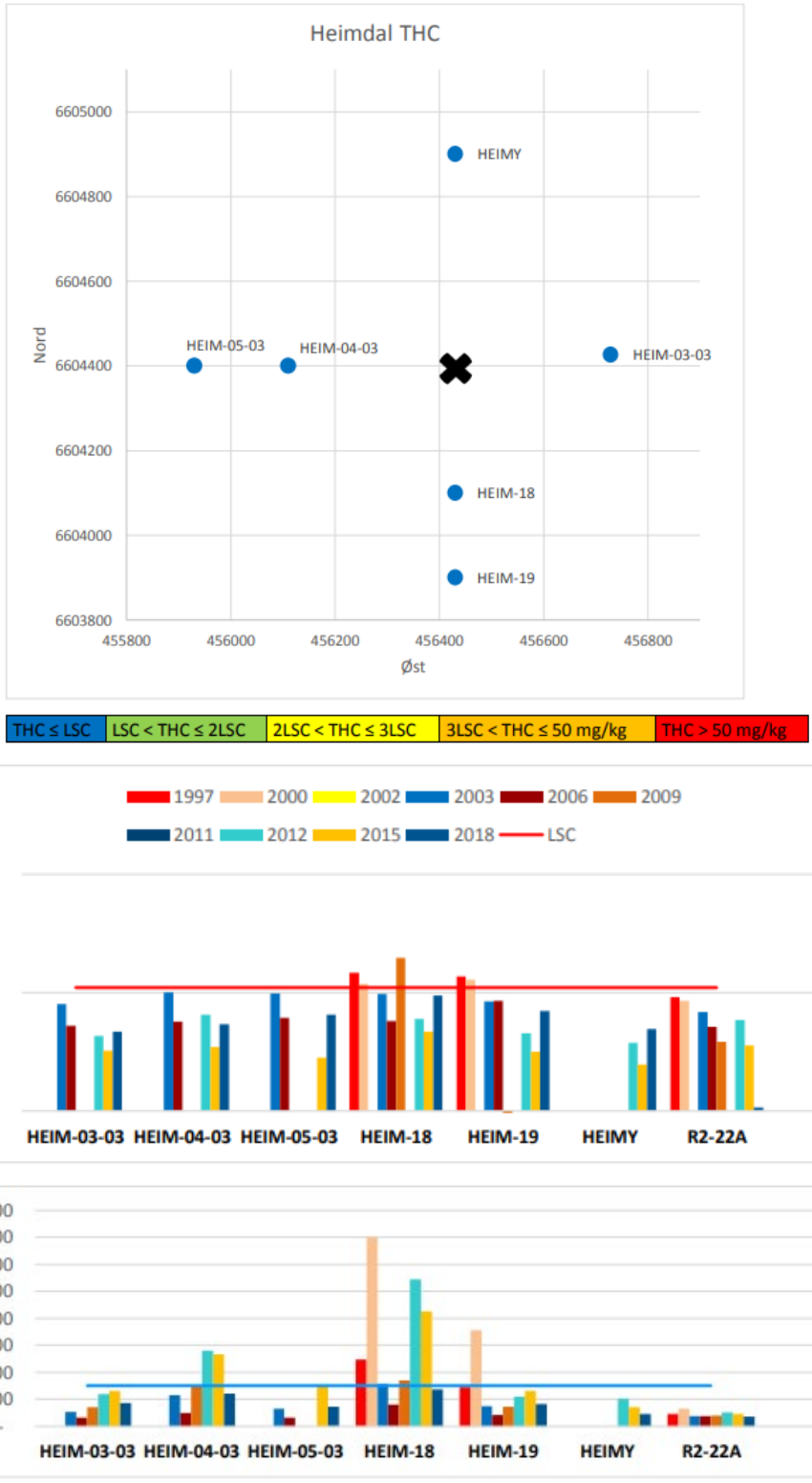
Tabell 3-23 Endrede posisjoner i 2018 for stasjon HEIM-03-03.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
HEIM-03-03	456754	6604458	80	300	HEIM-03-03	456728	6604427	84	299

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC lå under LSC på de feltspesifikke stasjonene, men var noe høyere enn på den tilhørende regionalstasjonen. Høyeste konsentrasjon (9,5 mg/kg) ble funnet på stasjonen HEIM-18, 250 meter sør for feltsenteret. Konsentrasjonen av PAH i sedimentet var over LSC på stasjon HEIM-18 og konsentrasjonen av NPD var over LSC på HEIM-18 og HEIM-19. På samtlige av de feltspesifikke stasjonene ble det observert en økning i konsentrasjonen av THC siden forrige undersøkelse. På den regionale stasjonen derimot, var det en nedgang. Økningen har trolig sammenheng med boreaktivitet og utslipp av diverse borerelaterte forbindelser i tillegg til olje i produsert vann. Den lave konsentrasjonen av THC i sedimentet avkrefter at de svarte flekkene var oljerelaterte.

Generelt sett er konsentrasjonene av metaller i sedimentet høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. De høyeste metallkonsentrasjonene ble funnet på HEIM-18 stasjonen som ligger 290 m sør for senteret. Konsentrasjonene for tre metaller lå over LSC på HEIM-04 som ligger 320 m vest for senteret. Konsentrasjonene av metaller var generelt sett på samme nivå som ved forrige undersøkelse, den mest fremtredende endringen var en betydelig reduksjon i konsentrasjonen av Ba på stasjon HEIM-18.



Figur 3-21 THC og Ba i sedimentet på Heimdal. For Ba er 2*LSC markert med blå strek.

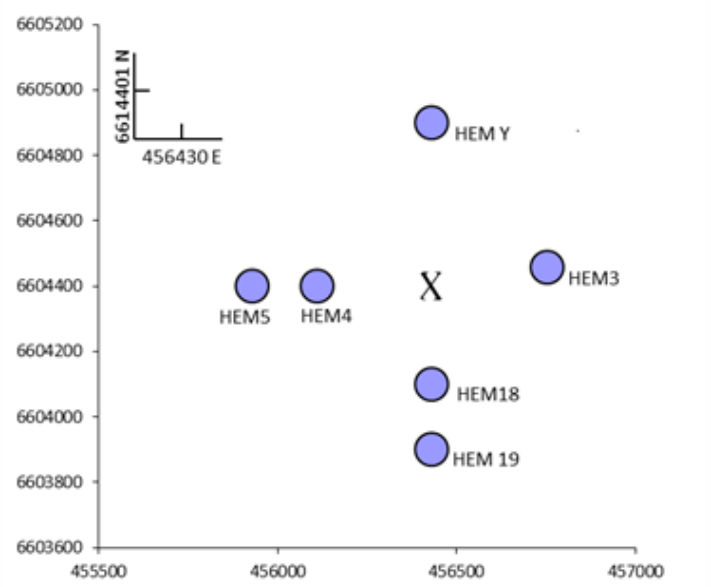
Program 2021

Det har vært noe utslipp, men ingen boringer i perioden. THC under LSC i alle retninger. Hovedstrømretning går trolig mot sørøst. Høyeste konsentrasjoner av THC og metaller på stasjonen 250 m mot sørøst. Samme stasjoner som i 2018 er forslått i 2021.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår biologiprøver fra programmet.

Tabell 3-24 Foreslått prøvetakingsprogram Heimdal 2021. Koordinater i ED50 UTM31. Blå font: stasjonen ble flyttet i 2018 men <50 m.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			456431	6604394						
HEIM-03	80	300	456728	6604427	116			3	3	
HEIM-04	270	320	456110	6604401	114			3	3	
HEIM-05	270	500	455930	6604401	112			3	3	
HEIM-18	180	300	456430	6604101	117			3	3	3
HEIM-19	180	500	456430	6603901	117			3	3	3
HEIMY	0	500	456430	6604901	117			3	3	
Sum								**18**	**18**	**6**



Figur 3-22 Stasjoner Heimdal i 2021.

3.11 Volve

Operatør er Equinor. Produksjon på feltet ble avsluttet med nedstengning i 2016. Volve ligger omlag 200 km vest for Stavanger i den sørlige delen av norsk sokkel og startet produksjonen i 2008. Oljen fra feltet

produseres fra en oppjekkbar plattform. Gassen sendes til den Equinor-opererte Sleipner A-plattformen for sluttprosessering og eksport.

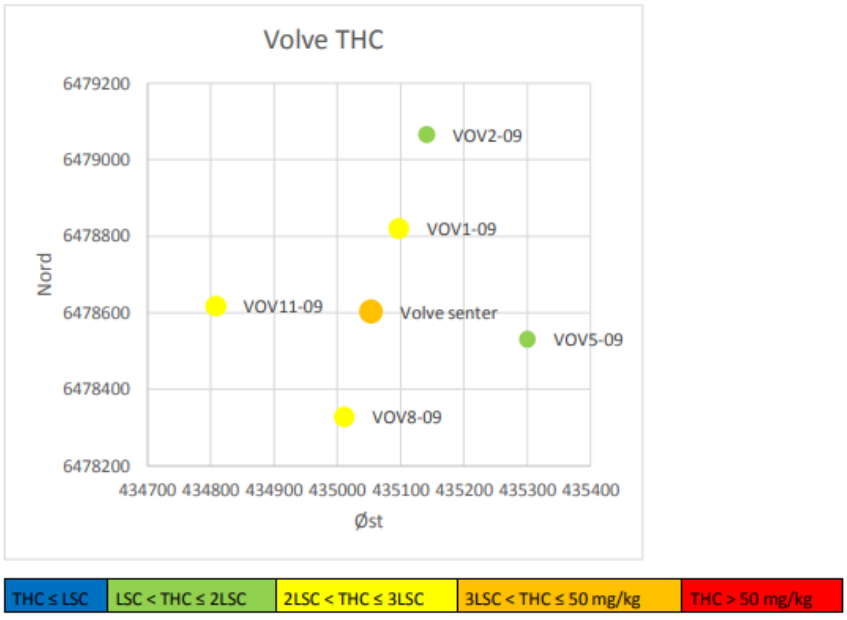
Utslipp og boreaktivitet

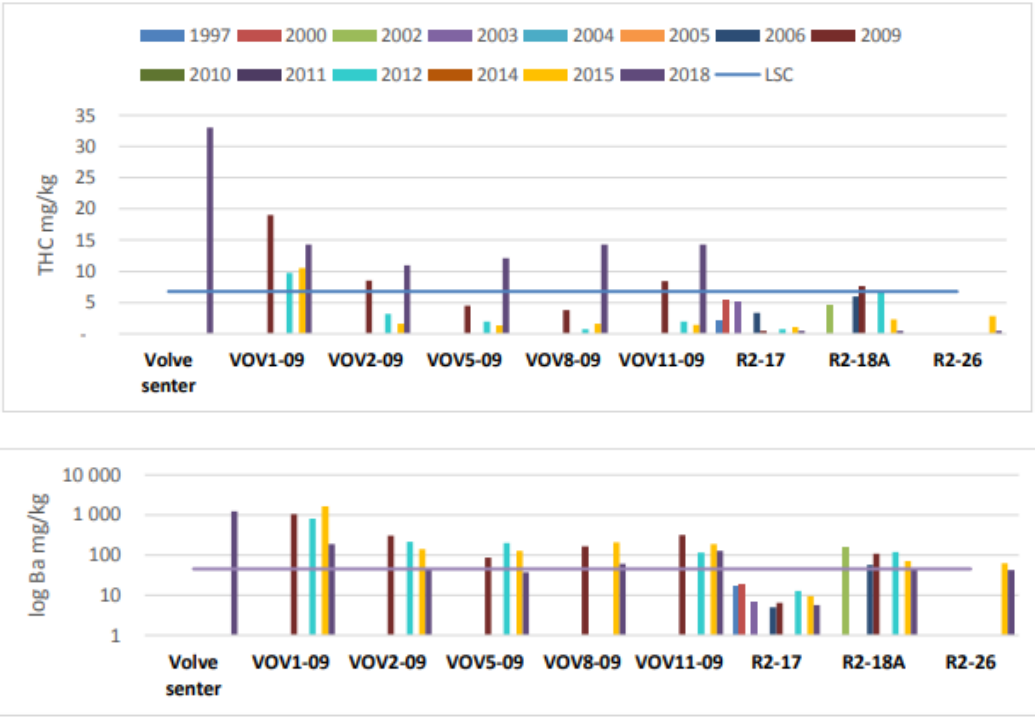
Feltet ble nedstengt og brønner ble plugget i 2016. Det er ikke rapportert om utslipp i perioden 2018-2021.

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC for alle de feltspesifikke stasjonene, og høyere enn ved den tilhørende regionalstasjonen. Høyeste THC-konsentrasjon ble funnet i Volve senter med 33 mg/kg. Sett i forhold til forrige undersøkelse var det en økning i konsentrasjonen av THC i sedimentet på samtlige av de feltspesifikke stasjonene, noe som sannsynligvis har sammenheng med boring av nye brønner i 2016. Etter 2016 er det ikke boret flere brønner og feltet ble nedstengt i 2016. Konsentrasjonen av PAH og NPD var høyere enn LSC på Volve senter. NPD lå over LSC 250 m mot nordøst (VOV1-09).

Generelt sett er konsentrasjonene av de undersøkte metallene på de feltspesifikke stasjonene relativt like sammenlignet med tilhørende regionale stasjonene. De høyeste konsentrasjonene ble funnet på stasjonene Volve senter og VOV1-09 som ligger 250 meter mot nordøst. Størst endringer sett i forhold til forrige undersøkelse er på stasjon VOV1-09 hvor det blant annet observeres en tydelig reduksjon knyttet til innholdet av barium i sedimentet.





Figur 3-23 THC og Ba i sedimentet på Volve. For Ba er 2*LSC markert med lilla strek.

Program 2021

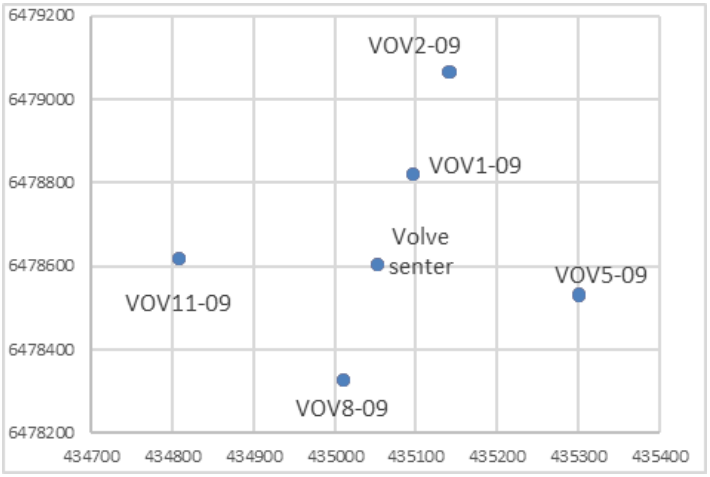
Grunnlagsundersøkelsen på Volve ble gjennomført i 2002, men stasjonsnettet ble endret i 2009. Stasjonsbetegnelsene ble da endret til VOV (stasjonsnummer)-09. For ikke å blande resultater fra nåværende stasjoner med resultater fra grunnlagsundersøkelsen bør stasjonene fra grunnlagsundersøkelsen i stedet få endelsen -02 i MOD.

Det har ikke vært utslipp på feltet siden forrige undersøkelse (nedstengt). THC konsentrasjonene har fortsatt ligget over LSC på alle stasjonene og var høyest i Volve senter med LSC lik 33 mg/kg. De samme stasjonene som i 2018 er foreslått overvåket i 2021, som da blir siste oppfølgende undersøkelse etter nedstenging.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 må biologiprøver inkluderes da det er en undersøkelse i forbindelse med avslutning.

Tabell 3-25 Foreslått prøvetakingsprogram Volve 2021. Alle koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Volve senter			435053	6478603		5	1	3	3	3
VOV1-09	10	250	435097	6478820	88	5	1	3	3	3
VOV2-09	10	500	435141	6479066	88	5	1	3	3	
VOV5-09	100	250	435300	6478531	89	5	1	3	3	
VOV8-09	190	250	435011	6478328	88	5	1	3	3	
VOV11-09	280	250	434808	6478617	85	5	1	3	3	
Sum						**30**	**6**	**18**	**18**	**6**



Figur 3-24 Stasjoner på Volve i 2021.

3.12 Gudrun

Gudrunfeltet ligger nordøst for Glitne i Region II, og er bygd ut med en plattform stående på havbunnen med en tradisjonell stålstruktur. Plattformen har kapasitet for delvis behandling av olje og gass før hydrokarbonene sendes i rør til Sleipner. Produksjonen startet opp i april 2014. Operatør er Equinor.

Utslipp og boreaktivitet

Utslippsdata og boreaktivitet på Gudrun i siste 3-års periode er vist i tabellen under.

Tabell 3-26 Utslippsdata og boreaktivitet for Gudrun i perioden 2018-2021.

Gudrun	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	2	6
Utslipp (tonn)			
Baritt	0	340.08	752.65
Borekaks	0	1873.47	4071.48
Vannbasert borevæske	0	3189.85	6136.82
Sementeringskjemikalier	0	140.95	7.78
Kompletteringskjemikalier	0		
Olje i produsert vann/forurenset vann	0.75	1.43	1.28
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Posisjonsendringer

Stasjon GU5 ble flyttet >50 m i 2018 og er derfor en ny stasjon. Stasjon GU6 ble flyttet < 50m.

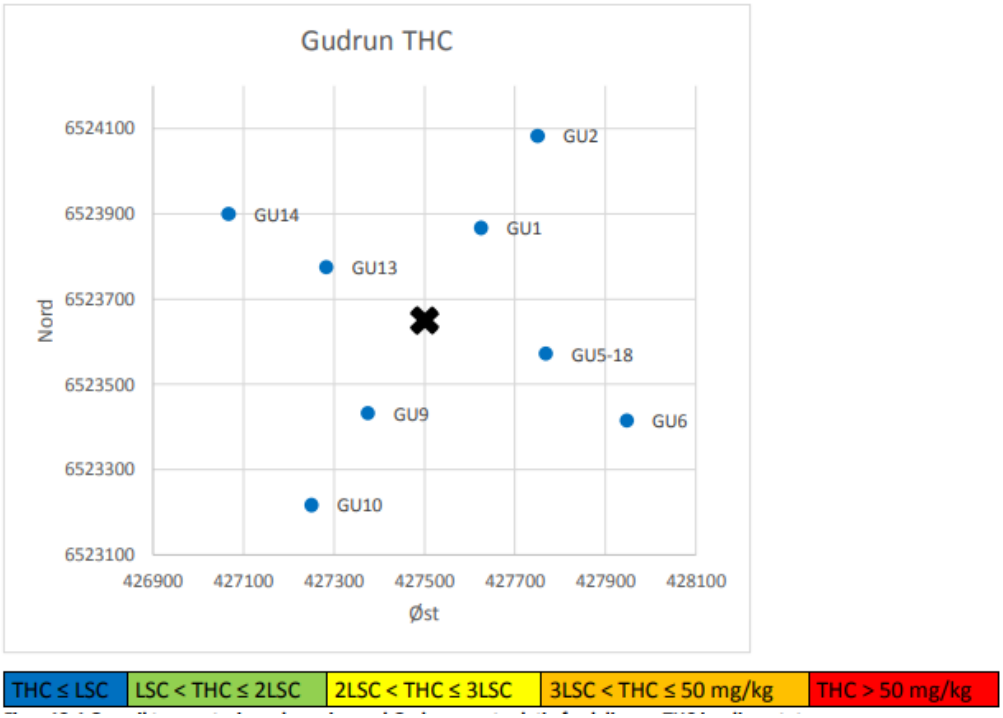
Tabell 3-27 Stasjoner som ble flyttet på Gudrun i 2018.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
GU5	427717	6523525	120	250	GU5-18	427768	6523572	107	273
GU6	427933	6523400	120	500	GU6	427947	6523415	118	505

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var lave og under LSC for alle de feltspesifikke stasjonene, men høyere enn tilhørende regionalstasjon. Konsentrasjonen av PAH var under LSC for de to undersøkte feltspesifikke stasjonene samt for regionalstasjonen. Konsentrasjonen av NPD lå over LSC for begge de feltspesifikke stasjonene men under LSC for den regionale stasjonen.

Generelt sett er konsentrasjonene høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Kun konsentrasjonen av arsen på stasjonen 250 m mot nordøst (GU1) var over LSC. Alle de øvrige konsentrasjonene lå under LSC for samtlige stasjoner. Konsentrasjonen av metaller i sedimentet var generelt noe lavere enn ved forrige undersøkelse.





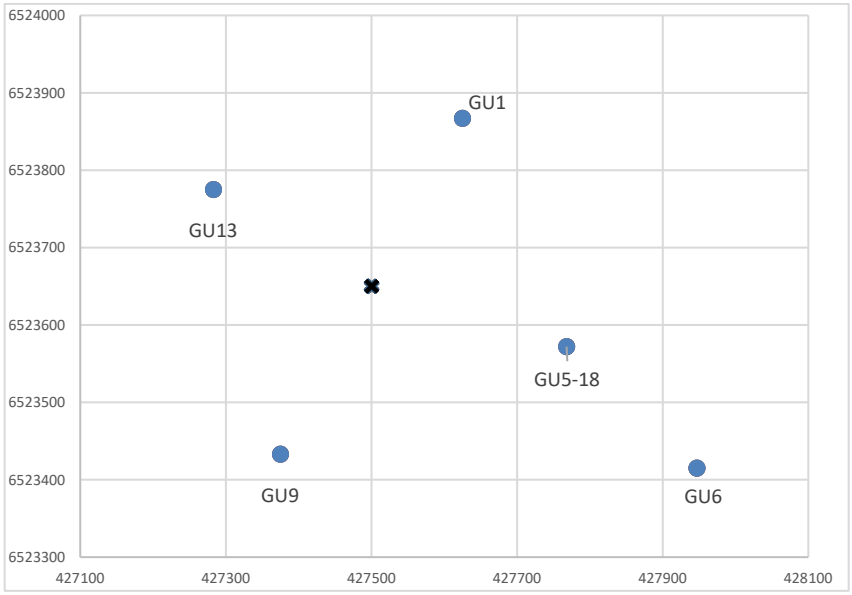
Figur 3-25 THC og Ba i sedimentet på Gudrun. For Ba er 2*LSC markert med blå strek.

Program 2021

Basert på resultatene (THC<LSC) foreslås det å redusere antall stasjoner i alle retninger unntatt i sørøstlig retning som er antatt hovedstrømretningen.

Tabell 3-28 Foreslått prøvetakingsprogram Gudrun 2021. Rød font: Stasjon ble flyttet >50 m i 2018, blå font: Stasjon ble flyttet i 2018 men <50 m. Alle koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
GU1	30	250	427500	6523650	105	5	1	3	3	
GU2	30	500	427625	6523867	105					
GU5-18	107	273	427750	6524083	106	5	1	3	3	3
GU6	118	505	427768	6523572	105			3	3	3
GU9	210	250	427947	6523415	105	5	1	3	3	
GU10	210	500	427375	6523433	105					
GU13	300	250	427250	6523217	105	5	1	3	3	
GU14	300	500	427283	6523775	105					
Sum						**20**	**4**	**15**	**15**	**6**



Figur 3-26 Stasjoner på Gudrun i 2021.

3.13 Utgard

Operatør er Equinor. Utgard gass- og kondensatfelt er lokalisert i lisensene PL046E og PL046 F i blokk 15/8 og i P.312 i blokk 16/18 på UK side. Feltet hadde grunnlagsundersøkelse i 2018 og undersøkelsen i 2021 blir den første overvåkingsundersøkelsen.

Utslipp og boreaktivitet

Utslippsdata og boreaktivitet på Utgard i siste 3-års periode er vist i tabellen under.

Tabell 3-29 Utslippsdata og boreaktivitet for Utgard i perioden 2018-2021.

Gudrun	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	2	0	0
Utslipp (tonn)			
Baritt	748.97	0	0
Borekaks	2876.99	0	0
Vannbasert borevæske	1296.88	0	0
Sementeringskjemikalier	87.01	0	0
Kompletteringskjemikalier	56.37	0	0
Olje i produsert vann/forurenset vann	0.0039	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

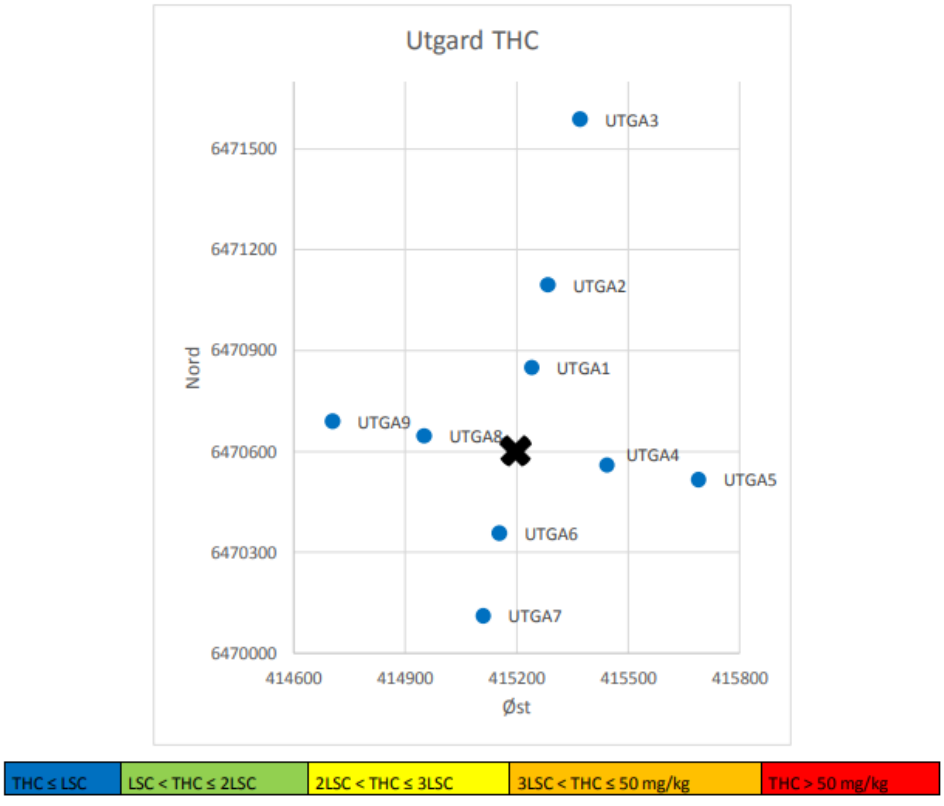
Resultater og konklusjoner fra undersøkelsen i 2018

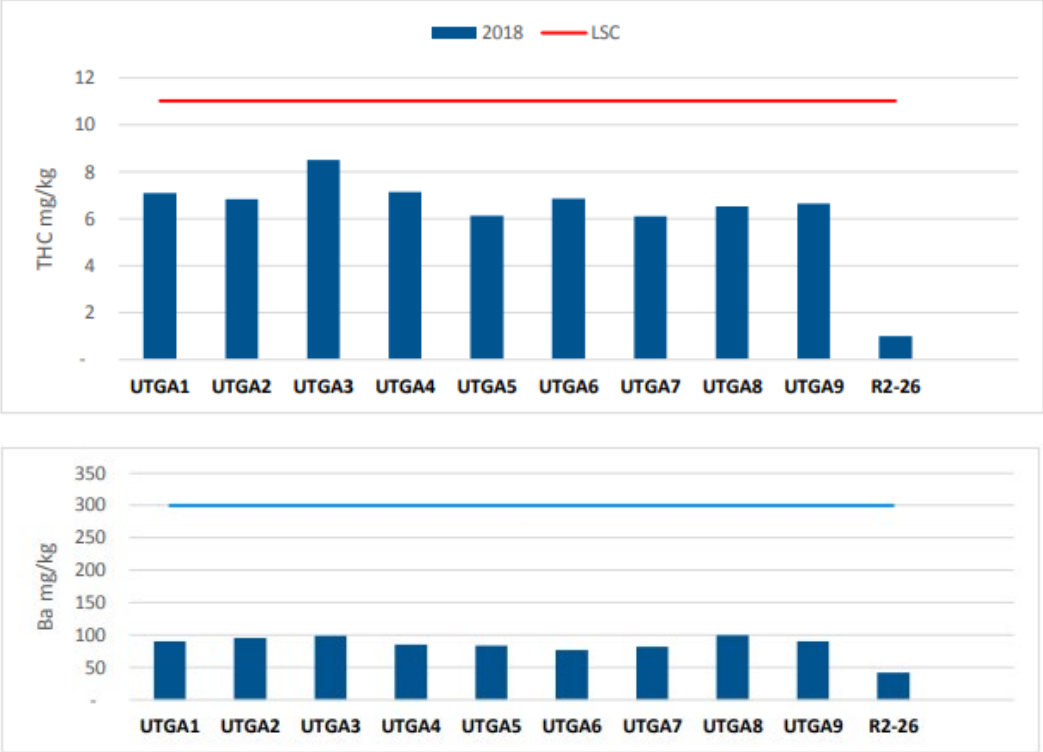
I 2018 ble sedimentet fra stasjon UTGA6 samt den tilhørende regionale stasjonen klassifisert som «svært fin sand».

Konsentrasjonene av THC var lave og under LSC på samtlige feltspesifikke stasjoner. Konsentrasjonene av PAH var over LSC for alle stasjoner i nordlig samt i østlig retning fra feltsenteret. Innhold av NPD var litt over LSC for samtlige feltspesifikke stasjoner. På regionalstasjonen var konsentrasjonen av både THC, PAH og NPD under LSC.

Generelt sett var konsentrasjonene noe høyere på de feltspesifikke stasjonene sammenlignet med den tilhørende regionale stasjonen. Konsentrasjonen av As i sedimentet lå over LSC for to av stasjonene mot nordøst og nordvest (UTGA 2, UTGA3, UTGA8 og UTGA9). For de øvrige stasjonene lå konsentrasjonene av samtlige metaller under LSC med unntak av stasjon UTGA8 som ligger 250 meter øst for feltsenteret, her var konsentrasjonen av Cd, Cr, Zn og As noe over LSC.

Antall taksa, individer samt diversitetsindekser er generelt sett høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Basert på bunndyrsanalysene indikerer faunasammensetningen et uforstyrret bunnhabitat på samtlige stasjoner ved Utgard.





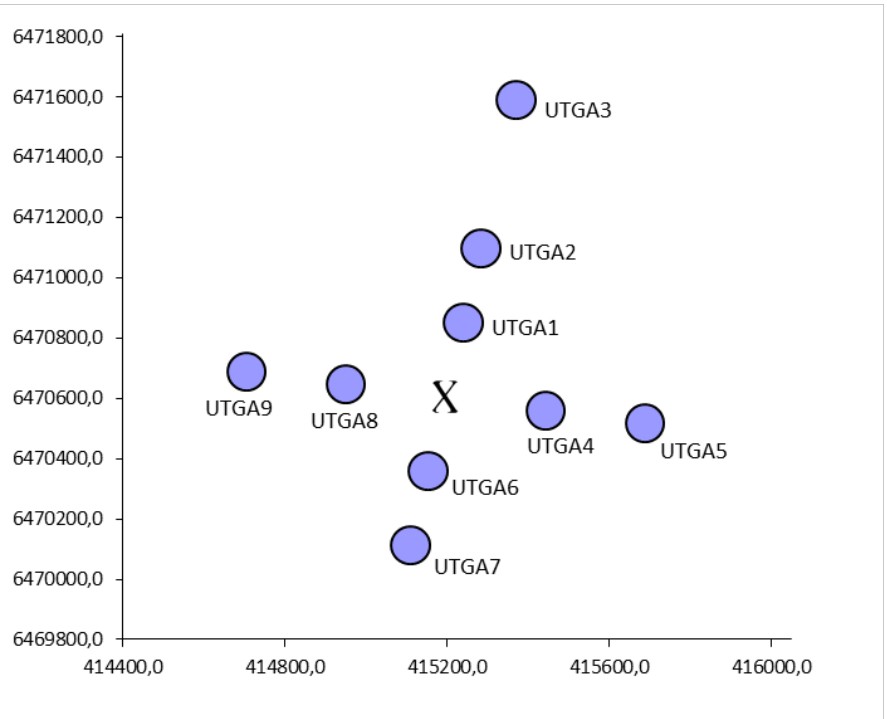
Figur 3-27 THC og Ba i sedimentet på Utgard. For Ba er 2*LSC markert med blå strek.

Program 2021

Da det er første overvåkingsundersøkelse i 2021, så det blir samme program som grunnlagsundersøkelsen i 2018.

Tabell 3-30 Foreslått prøvetakingsprogram Utgard 2021. Alle koordinater i ED50 UTM31.

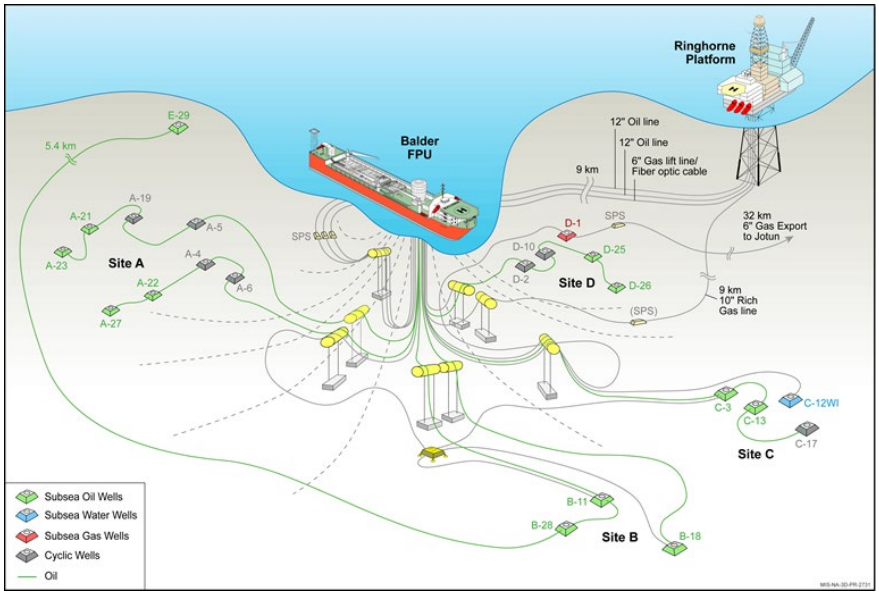
Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
UTGA1	10	250	415197	6470604	112	5	1	3	3	3
UTGA2	10	500	415240	6470850	112	5	1	3	3	3
UTGA3	10	1000	415283	6471096	112	5	1	3	3	3
UTGA4	100	250	415370	6471588	110	5	1	3	3	3
UTGA5	100	500	415443	6470560	111	5	1	3	3	3
UTGA6	190	250	415689	6470517	111	5	1	3	3	3
UTGA7	190	500	415153	6470357	110	5	1	3	3	3
UTGA8	280	250	415110	6470111	111	5	1	3	3	3
UTGA9	280	500	414950	6470647	112	5	1	3	3	3
Sum						**45**	**9**	**27**	**27**	**27**



Figur 3-28 Stasjoner Utgard 2021.

3.14 Balder

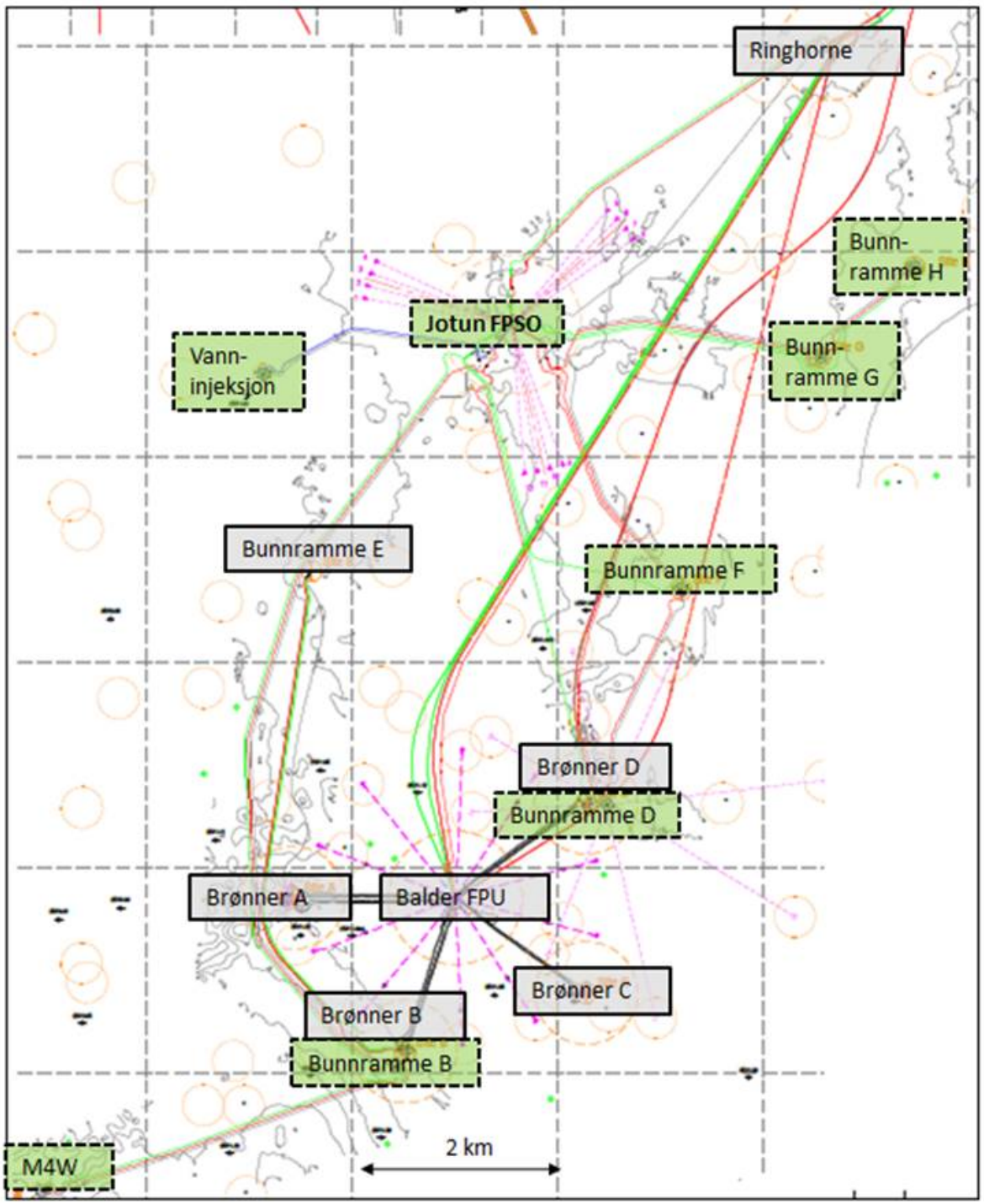
Operatør er Vår Energi AS. Balder ligger i blokk 25/11. Produksjonen fra feltet startet i 1999. Balder tilhører sentral subregion i Region II. Feltet består av skipet Balder FPU (Floating production unit) og tilknyttede brønner som er plassert i fire hovedområder (A, B, C og D) og en brønn (E29) i område E. Undersøkelsen i 2018 ble utført i område A (brønn A26), B (brønn B28) og E (brønn E29) i forbindelse med foregående utslipp fra boring. Det er flere brønner i disse områdene som er boret før 2015.



Figur 3-29 Generell oversikt Balder. For planer og videreutvikling se figur under.

Vår Energi gjennomfører nå en videre utvikling av feltet i 2021 til 2023. Det skal installeres fem bunnrammer, bores nye brønner og Jotun FPSO skal ankres opp og prosessere produksjonen (se Figur 3-30). Boringen starter til sommeren 2021 i bunnramme G.

Grunnlagsundersøkelse på tre av bunnrammene (H, G og F) ble gjort i 2020. I 2021 gjøres grunnlagsundersøkelse på bunnramme B, D og for brønnen M4W. For vanninjeksjonsbrønnen er det lagt opp til noe redusert program (4 overvåkingsstasjoner).



Figur 3-30 Plassering av utbyggingen av Balder Future (stiplede rammer rundt grønne tekstbokser). Eksisterende installasjoner har heltrukne linjer rundt grå tekstbokser. Tekstboksene er plassert over kart som viser hoveddelene til infrastrukturen på feltene og dermed de reelle avstander og plassering. Bunnramme B og D plasseres nær eksisterende brønner i brønnklyngene ved B og D tilhørende Balder FPU.

Utslipp og boreaktivitet

I 2015 og 2016 var det noe boreaktivitet og plugging av brønner med tilhørende utslipp av baritt, borekaks, borevæske og sementeringskjemikalier. I 2017-2020 har det ikke foregått boring. I hele perioden har det vært utslipp av produsert vann fra Balder PFU.

Tabell 3-31 Utslippsdata og boreaktivitet for Balder i perioden 2015-2021.

Balder	2015	2016	2017	2018*	2019	2020
Type utslipp/ aktivitet						
Antall brønner boret	Boret: 3 Plugget: 5	Boret: 3	0	0	0	0
Utslipp (tonn)						
Baritt	140	41	0	0	0	0
Borekaks	2077	629	0	0	0	0
Vannbasert borevæske	5671	2054	0	0	0	0
Sementeringskjemikalier	43	62	0	0	0	0
Kompletteringskjemikalier	0	0	0	0	0	0
Olje i produsert vann/forurenset vann	45	44	64	31	37,4	30,6
Uhellsutslipp (m3)						
Vannbasert borevæske	0	0	0	0	0	0
Oljebasert borevæske	0	0	0	0	0	0
Andre oljeutslipp/ lekkasjer	16,04	4,86	0,102	0,01	0,0013	0,0012

Endrede posisjoner

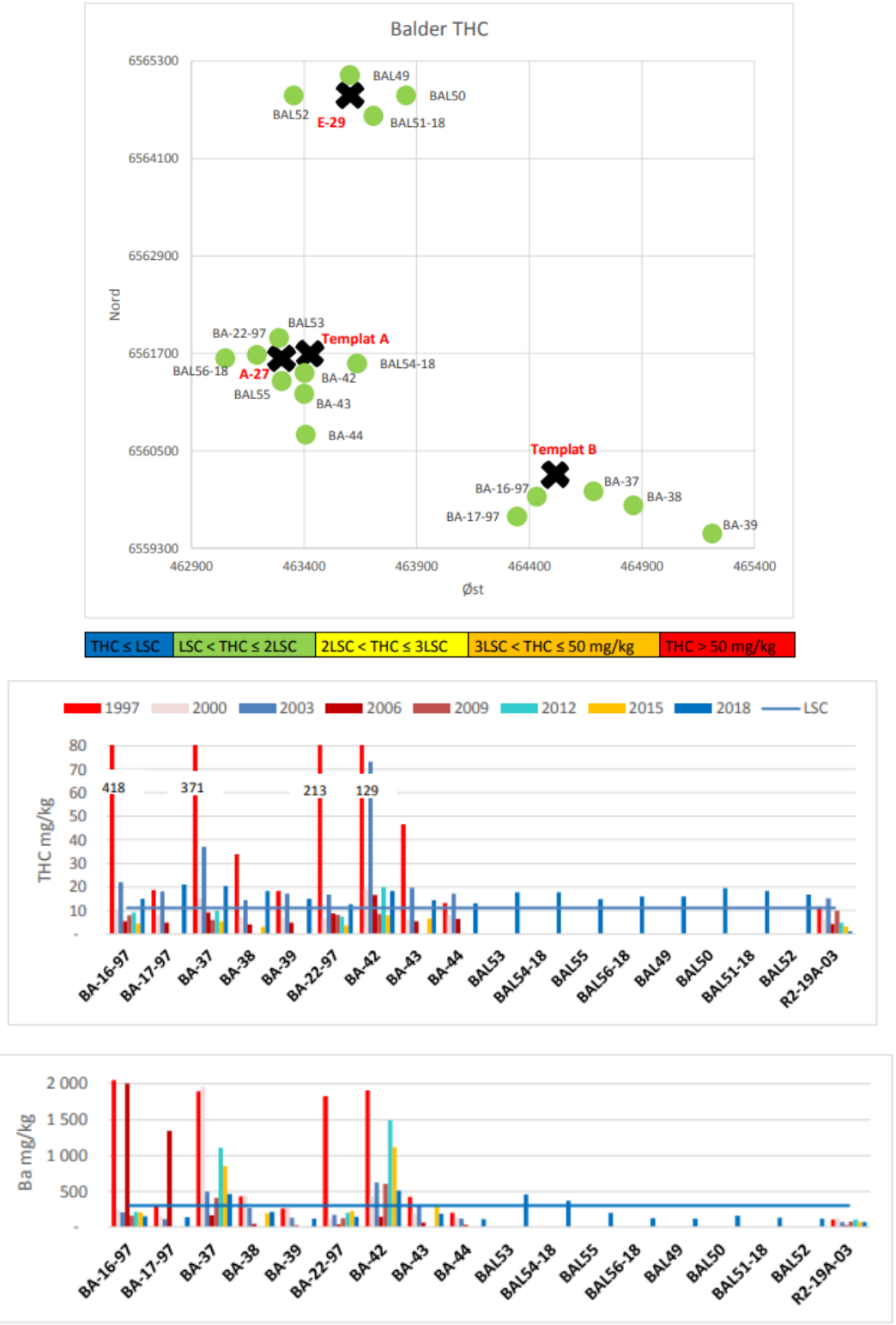
To stasjoner (BAL53 og BAL55) ble flyttet mindre enn 50 m, tre stasjoner ble flyttet mer enn 50 meter (BAL54, BAL56 og BAL51) og fikk nye navn (BAL54-18, BAL56-18 og BAL51-18).

Tabell 3-32 Endrede posisjoner i 2018 for stasjoner på Balder.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
BAL53	463300	6561890	0	250	BAL53	463289	65618890	358	215
BAL54	463550	6561640	90	250	BAL54-18	463635	6561576	101	341
BAL55	463300	6561390	180	250	BAL55	463300	6561360	180	280
BAL56	463050	6561640	270	250	BAL56-18	463050	6561640	270	250
BAL51	463603	6564629	180	250	BAL51-18	463708	6564627	159	271

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC i sedimentet var over LSC for samtlige undersøkte stasjoner, og høyere enn på den tilhørende regionalstasjonen. Høyeste konsentrasjon ble funnet på stasjonen sørvest for templat B. THC-konsentrasjonen har økt på samtlige feltspesifikke stasjoner siden forrige undersøkelse. Generelt sett er konsentrasjonene av de ulike metallene i sedimentet høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Enkelte metallkonsentrasjoner ligger så vidt over LSC. Konsentrasjonene av metaller i sedimentet var stort sett på samme nivå i 2018 som i 2015, mens kvikksølv var noe lavere i 2018 enn i 2015.



Figur 3-31 THC og Ba i sedimentet på Balder. For Ba er 2*LSC markert med blå strek.

Program 2021

Overvåkingsprogrammet fra 2018 foreslås videreført. Templatene ligger relativt nær hverandre (spesielt Templat-A og A27) og delvis overlappende stasjoner er foreslått fjernet. THC lå over LSC på alle de

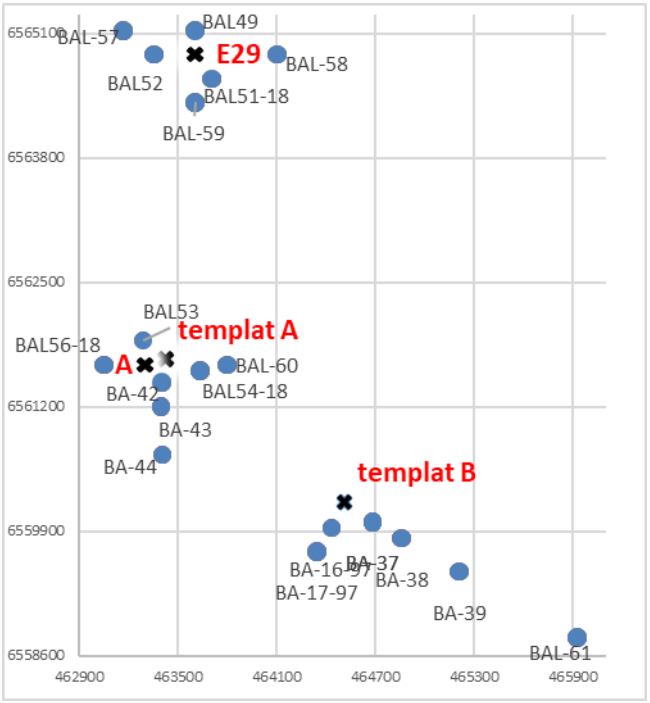
undersøkte stasjonene i 2018 og var som regel høyest i sør/sørøstlig retning som også er angivelig er hovedstrømretningen i området. Det er derfor hovedsakelig lagt til nye ytterstasjoner i denne retningen.

Det er videre lagt til en kombinasjon av nye og eksisterende overvåkingsstasjoner rundt bunnramme B og D, mens rundt M4W og vanninjeksjons er det lagt til nye overvåkingsstasjoner og undersøkelsene kan betraktes som en grunnlagsundersøkelser.

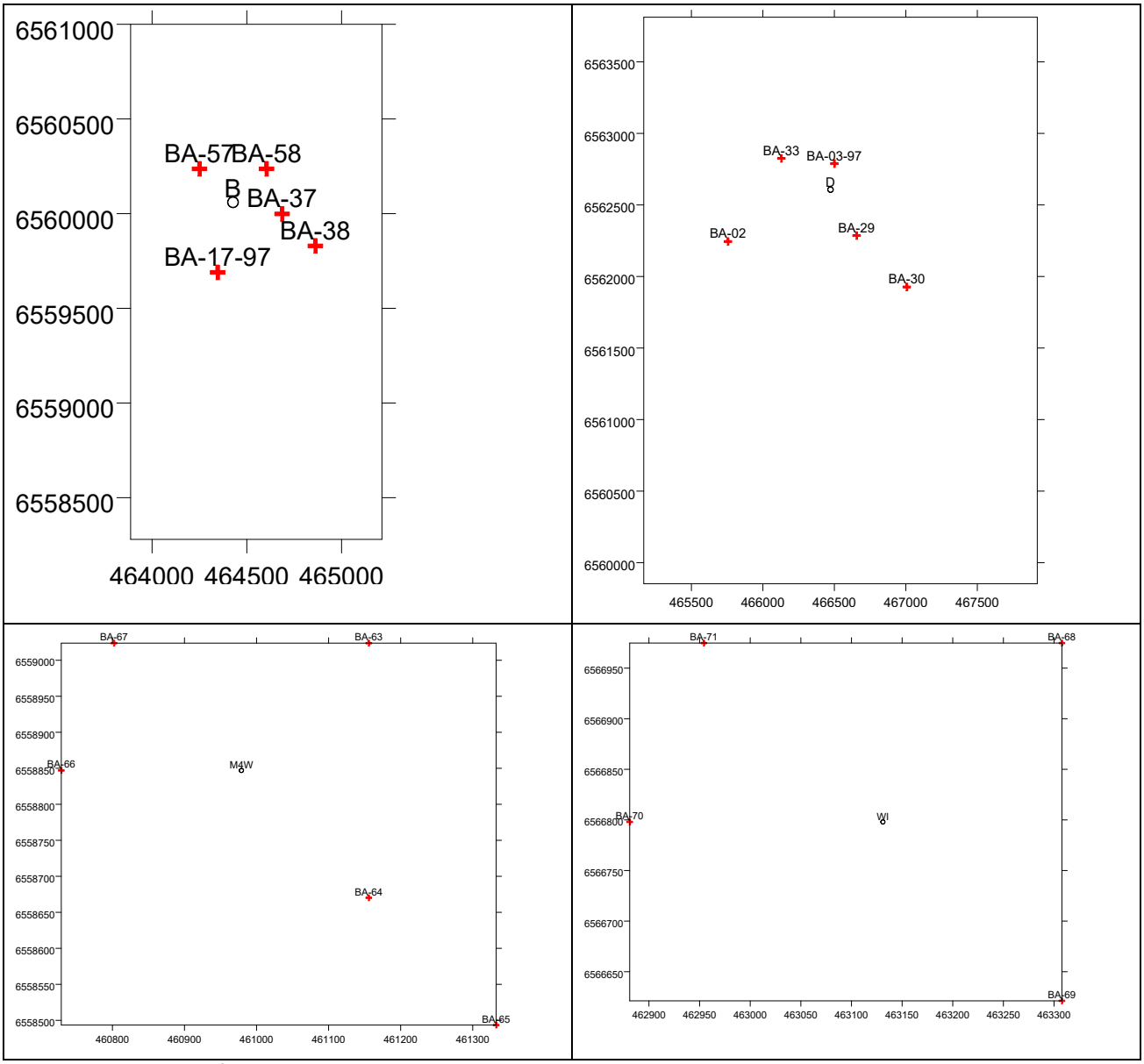
Tabell 3-33 Foreslått prøvetakingsprogram 2021. Rødfarget: stasjon utgår. Koordinater i ED50 UTM31. Rød font: Stasjon ble flyttet >50 m i 2018, blå font: Stasjon ble flyttet i 2018 men <50 m.

Balder	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Temp A			463425	6561700						
BA-22-97	266	235	463190	6561683	129					
BA-42	180	250	463403	6561458	123	5	1	3	3	3
BA-43	180	500	463400	6561202	123			3	3	3
BA-44	180	1000	463407	6560701	123			3	3	
BAL60	90	500	465013	6560202				3	3	
Temp B			464513	6560202						
BA-16	198	250	464434	6559934	125	5	1	3	3	
BA-17-97	198	500	464346	6559690	123			3	3	
BA-37	135	250	464686	6559998	123	5	1	3	3	3
BA-38	135	500	464862	6559830	123			3	3	3
BA-39	135	1000	465213	6559481	123			3	3	
BA61	45	250	464604	6560237				3	3	
E-29			463603	6564879						
BAL49	0	250	463603	6565129		5	1	3	3	
BAL50	90	250	463853	6564879						
BAL51-18	159	271	463708	6564627		5	1	3	3	3
BAL52	270	250	463353	6564879				3	3	
BAL57	300	500	463170	6565129				3	3	
BAL58	90	500	464103	6564879				3	3	
BAL59	180	500	463603	6564379				3	3	3
A-27			463300	6561640						
BAL53	358	215	463289	6561890				3	3	
BAL54-18	101	341	463635	6561576		5	1	3	3	
BAL55	180	280	463300	6561360						
BAL56-18	270	250	463050	6561640				3	3	
Balder B			**464427**	**6560060**						
BA-17-97	192	379	464346	6559690		5	1	3	3	3
BA-37	103	266	464686	6559998		5	1	3	3	3
BA-38	118	492	464862	6559830		5	1	3	3	3
BA-61	45	250	464604	6560237		5	1	3	3	3
BA-62	315	250	464250	6560237		5	1	3	3	3
Balder D			**466473**	**6562607**						
BA-03-97	8	183	466500	6562789		5	1	3	3	3
BA-29	150	369	466655	6562286		5	1	3	3	3
BA-30	142	865	467007	6561927		5	1	3	3	3

BA-02	243	804	465756	6562244	5	1	3	3	3
BA-33	302	407	466129	6562825	5	1	3	3	3
M4W			**460979**	**6558847**					
BA-63	45	250	461156	6559024	5	1	3	3	3
BA-64	135	250	461156	6558670	5	1	3	3	3
BA-65	135	500	461333	6558493	5	1	3	3	3
BA-66	270	250	460729	6558847	5	1	3	3	3
BA-67	315	250	460802	6559024	5	1	3	3	3
Water Injection			**463131**	**6566798**					
BA-68	45	250	463308	6566975	5	1	3	3	3
BA-69	135	250	463308	6566621	5	1	3	3	3
BA-70	270	250	462881	6566798	5	1	3	3	3
BA-71	315	250	462954	6566975	5	1	3	3	3
Sum					**125**	**25**	**114**	**114**	**75**



Figur 3-32 Overvåkingsstasjoner område A, videreført fra 2018, Balder.



Figur 3-33 Overvåkingsstasjoner bunnramme B (øverst til venstre), bunnramme D (øverst til høyre), brønn M4W (nederst til venstre) og lokasjon for vanninjeksjon (nederst til høyre).

3.15 Jotun

Operatør er Vår Energi AS. Jotun ligger i blokk 25/7 og 25/8 i Region 2. Feltet er stengt og installasjonene er fjernet. Undersøkelsen ved Jotun B, blir den første etter at installasjonen er fjernet. Ved Jotun A FPSO har det ikke blitt tatt prøver tidligere (det har ikke vært ikke utslipp fra boring der). I forbindelse med søknad om fjerningsaktiviteter har Miljødirektoratet i vedtak om tillatelse, angitt at det bør vurderes å ta prøver ved Jotun A. Vår energi foreslår å ta prøver rundt endepunkt (kuttested) for 12'' rørledning mellom Ringhorne og Jotun A. Dette gjøres for å undersøke om det har vært utslipp som påvirker bunnforholdene i forbindelse med nedstengningsaktivitetene.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Jotun er vist i tabellen under.

Tabell 3-34 Utslippsdata og boreaktivitet for Jotun i perioden 2018-2021.

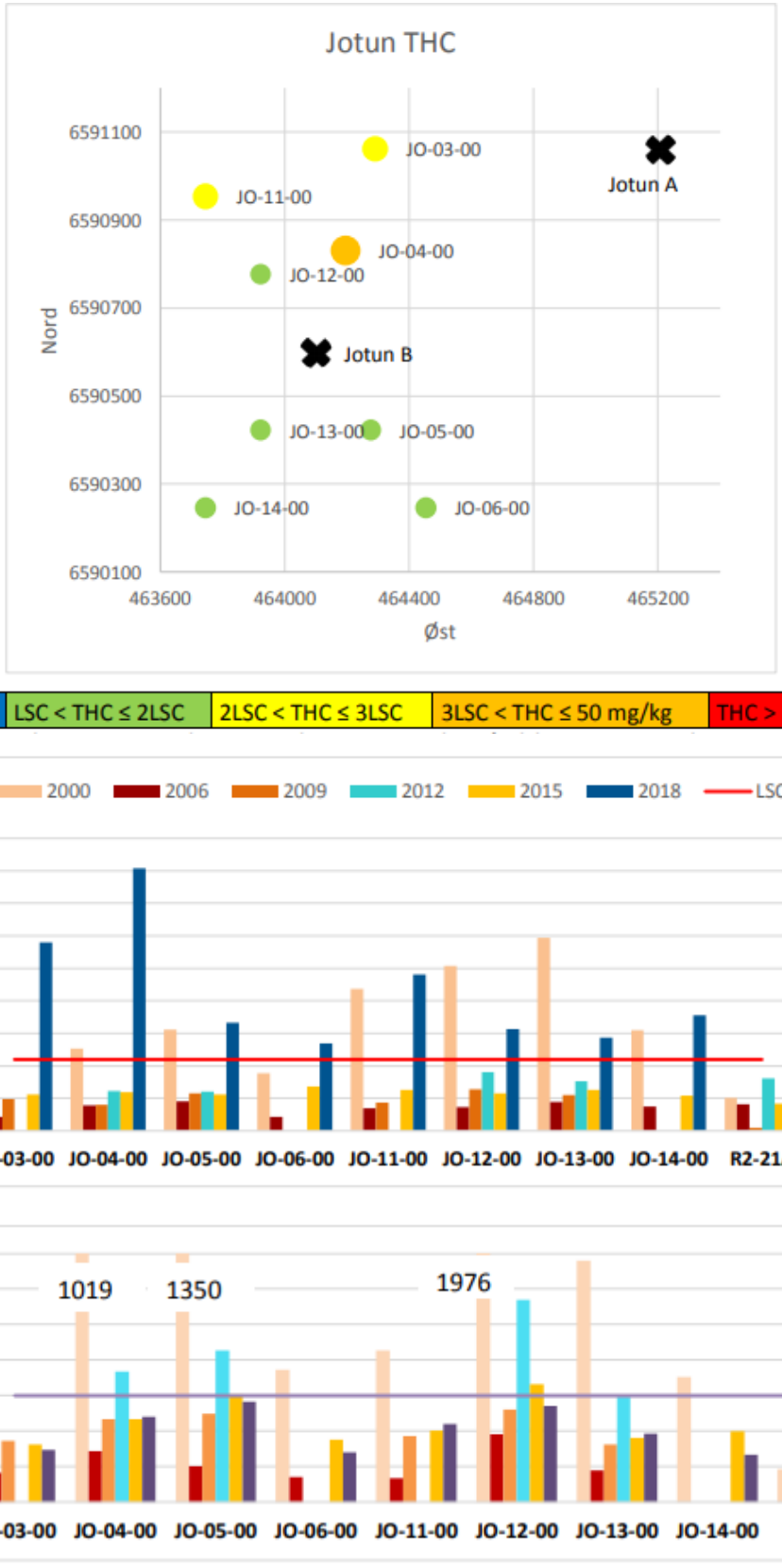
Jotun	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0,239	0,628	0,072
Uhellsutslipp (m3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0,028	0,025

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC for alle de feltspesifikke stasjonene, og høyere enn tilhørende regionalstasjon. Stasjonene med høyest konsentrasjon av THC ligger nordøst og nordvest for feltsenteret. Konsentrasjonen av NPD og PAH i sedimentet lå over LSC for alle stasjonene inklusiv den regionale stasjonen med unntak av PAH på stasjonen 250 m mot sørøst (JO-05-00) som lå under LSC. Det ble observert en tydelig økning i konsentrasjonen av THC på samtlige stasjoner siden forrige undersøkelse med unntak av den regionale stasjonen hvor det ble observert en nedgang. Økningen i THC ved Jotun B kan ha sammenheng med avslutningsaktiviteter, inkludert plugging av brønner, men kilden til THC er ikke identifisert.

Konsentrasjonen av metaller i sedimentet var generelt sett lave med noen enkeltverdier over LSC for Cd, Cr, Cu, Zn og As. Generelt sett var konsentrasjonene av metaller noe høyere på de feltspesifikke stasjonene sammenlignet med den tilhørende regionale stasjonen. Sett i forhold til forrige undersøkelse er det kun mindre endringer i konsentrasjonen av de ulike metallene i sedimentet med unntak av en generell nedgang i konsentrasjonen av Hg på samtlige stasjoner og en tydelig økning i konsentrasjonen av Cd, Cr og Cu på stasjonen 250 m mot nordøst (JO-04-00).

Sedimentet fra JO-05-00 inneholdt noe høyere radioaktivitetsverdier av 226Ra og 228Ra sammenlignet med regionalstasjonen R2-21A. Sediment-sjiktet 0-1 cm fra stasjonen JO-12-00 hadde litt høyere verdier av 228Ra, 210Pb og 40K på sammenlignet med den regionale stasjonen. Ellers var aktiviteten på nivå med eller lavere enn den regionale stasjonen.

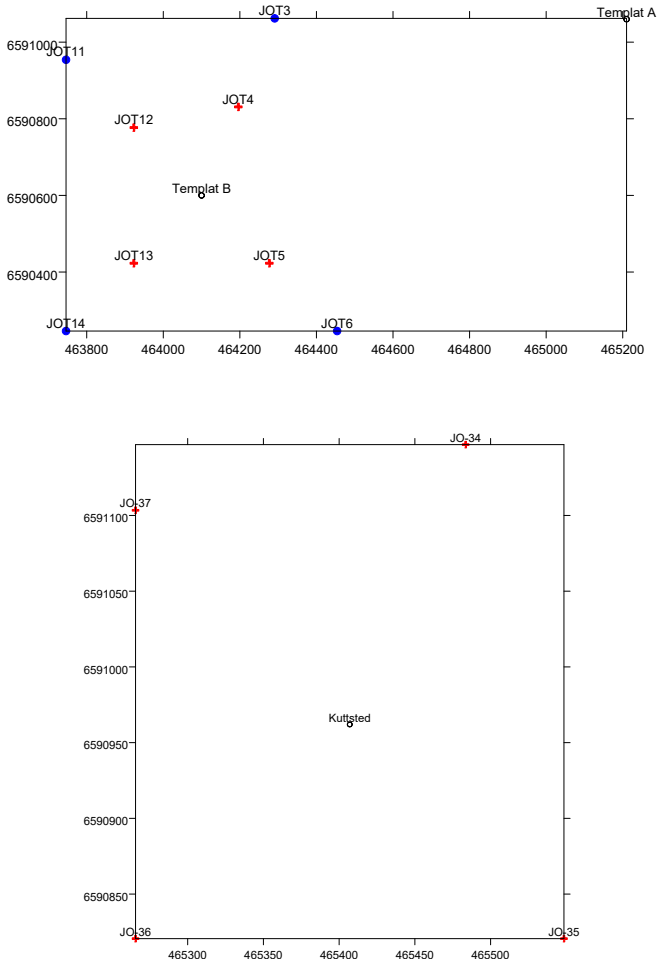


Figur 3-34 THC og Ba i sedimentet på Jotun. For Ba er 2*LSC markert med lilla strek.

Program 2021

Tabell 3-35 Foreslått prøvetakingsprogram Jotun 2021. Koordinater i ED50 UTM31.

Jotun	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/	THC	Met.	NPD/	Radio
Jotun B			**464100**	**6590600**							
JO-03-00	22,5	500	464291	6591062	129			3	3		
JO-04-00	22,5	250	464196	6590831	129	5	1	3	3		3
JO-05-00	135	250	464277	6590423	129	5	1	3	3	3	3
JO-06-00	135	500	464454	6590246	128			3	3	3	3
JO-11-00	315	500	463746	6590954	130			3	3		
JO-12-00	315	250	463923	6590777	128	5	1	3	3		3
JO-13-00	225	250	463923	6590423	128	5	1	3	3		
JO-14-00	225	500	463746	6590246	131			3	3		
Jotun A (kuttsted)			**465407**	**6590962**							
JO-34	22,5	200	465484	6591147		5	1	3	3	3	
JO-35	135	200	465548	6590821		5	1	3	3	3	
JO-36	225	200	465266	6590821		5	1	3	3	3	
JO-37	315	200	465266	6591103		5	1	3	3	3	
Sum						**40**	**8**	**36**	**36**	**18**	**12**



Figur 3-35 Stasjoner på Jotun og ved kuttet rørledning på Jotun (nederst) i 2021. Røde kryss: Biologi og kjemi, blå sirkler: Kjemi

3.16 Ringhorne

Operatør på Ringhorne er Vår Energi AS. Grunnlagsundersøkelsen ble gjennomført i 2000. Ringhorne tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Ny borekampanje på Ringhorne ble startet i 2020 og vil foregå i flere år framover. Boringen skjer i eksisterende brønner og det er ikke planlagt utslipp til sjø, med unntak av borekaks med vannbasert borevæske fra én brønn som er planlagt i 2023.

Tabell 3-36 Utslippsdata og boreaktivitet for Ringhorne i perioden 2018-2021.

Ringhorne	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	1
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0,075	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0,009	0

Posisjonsendring

Stasjon Rin4 ble flyttet < 50m (lå for nærme en rørledning).

Tabell 3-37 Endrede posisjoner i 2018 for stasjoner på Ringhorne.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
Rin4	468813	6570137	38	259	Rin4	468793	6570137	36	259

Resultater og konklusjoner fra undersøkelsen i 2018

Sedimentet fra stasjonene tilknyttet Ringhorne ble karakterisert som «svært fin sand», med unntak av stasjon RIN-Extra og RinEx-5 som henholdsvis ble klassifisert som «fin sand» og «grov sand». Andelen pelitt har sunket betraktelig på stasjon RIN-Extra siden forrige undersøkelse.

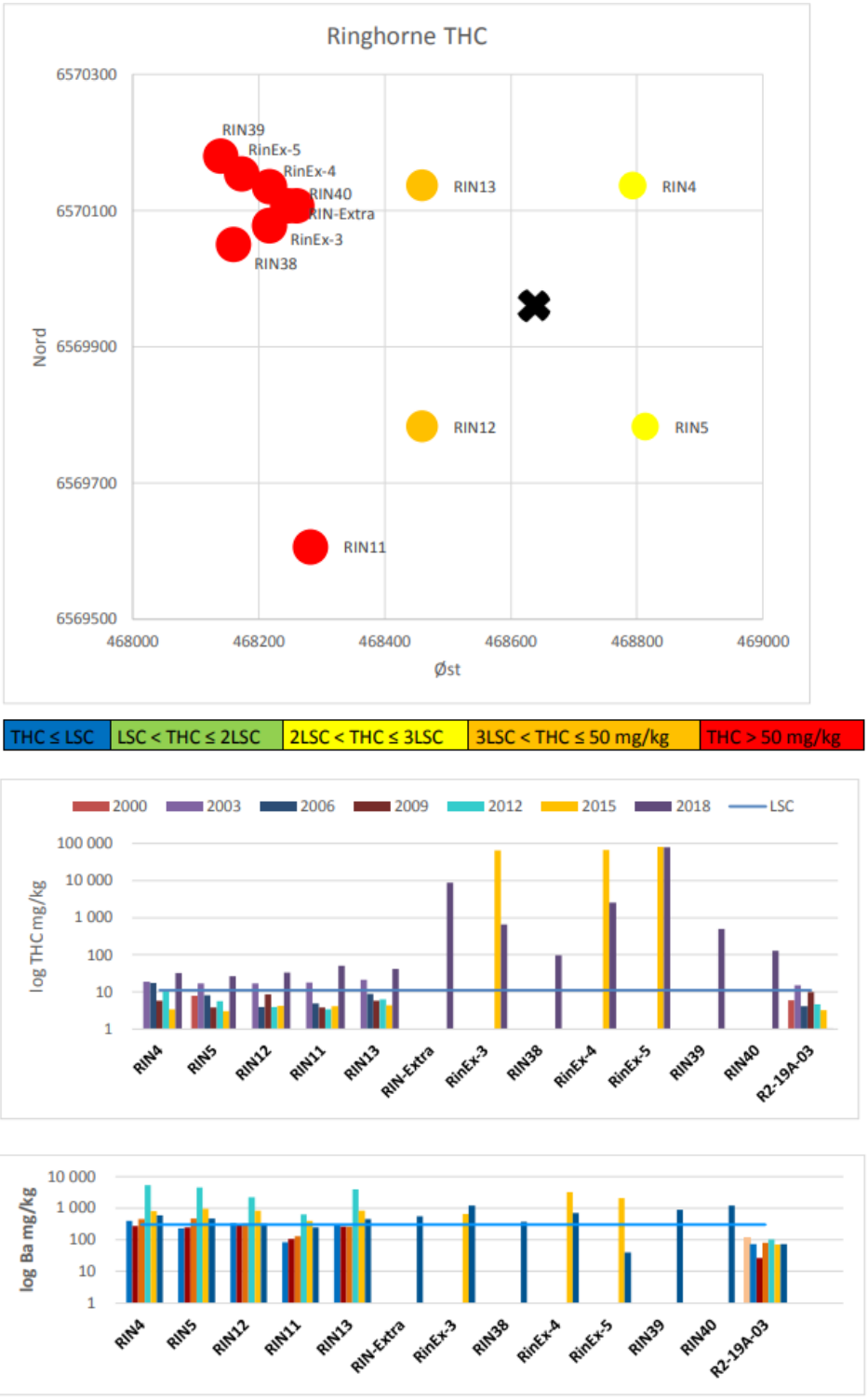
Andel totalt organisk karbon (TOC) lå mellom 0,43 % og 5,93 %, som er på nivå med resultatene fra 2015, med unntak av RinEx-3 hvor det observeres en tydelig reduksjon siden forrige undersøkelse. Den høye TOC verdien på stasjon RinEx-5 kan sees i sammenheng med lekkasjen fra sjøbunnen.

Konsentrasjonene av THC var høye og over LSC på samtlige stasjoner noe som også var tilfelle for NPD og PAH. Høyeste konsentrasjon av THC i sedimentet (79 000 mg/kg) ble funnet på stasjonen RinEx-5 men også stasjon RIN-Extra og RinEx-4 hadde svært høye konsentrasjoner av THC. Siden forrige undersøkelse var det en generell økning i THC konsentrasjonen i sedimentet på alle de undersøkte stasjonene med unntak av stasjon RinEx-3 og RinEx-4 hvor det var en tydelig reduksjon. På stasjon RinEx-5 var THC på omlag samme nivå som ved sist undersøkelse.

Spredningen av THC fra lekkasjepunktet i sjøbunnen gikk hovedsakelig mot sørvest og nordvest. Stasjonene øst for feltsenteret (RIN4 og RIN5) og spesielt vest for feltsenteret (RIN11, RIN12 og RIN13) hadde betydelig økt THC konsentrasjon siden forrige undersøkelse. Siden det ikke har vært utslipp fra feltsenteret i perioden 2015-2018, kan denne undersøkelsen indikere at det også har vært noe spredning østover fra lekkasjepunktet i sjøbunnen.

Konsentrasjonene av de ulike metallene i sedimentet var høyere på de fleste feltspesifikke stasjonene enn den tilhørende regionale stasjonen. De høyeste konsentrasjonene som ble funnet på stasjoner mot nordvest var tilknyttet lekkasjepunktet fra tidligere deponibrønn. Samtlige stasjoner har overskridelser av LSC på to eller flere metaller. Sett i forhold til forrige undersøkelse er konsentrasjonene av de ulike metallene i sedimentet omtrent på samme nivå, noen stasjoner skiller seg imidlertid ut. På stasjon RinEx-3 og RinEx-4 var det en generell reduksjon i konsentrasjonen av de fleste metallene mens det på stasjon RinEx-5 var en generell økning.

Basert på bunndyrsanalysene indikerer faunasammensetningen et upåvirket bunnhabitat på stasjon RIN38, RIN39 og RIN40. Antall taksa, individer samt diversitetsindekser var på samme nivå som den tilknyttede regional stasjonen for disse tre feltspesifikke stasjonene. Undersøkelsen viser en forstyrret fauna med lavt antall taksa, individer og diversitetsindekser på tre av stasjonene, RIN-Extra, RinEx-3 og RinEx-5, som ligger i området rundt lekkasjepunktet fra sjøbunnen.



Figur 3-36 THC og Ba i sedimentet på Ringhorne. For Ba er 2*LSC markert med blå strek.

Program 2021

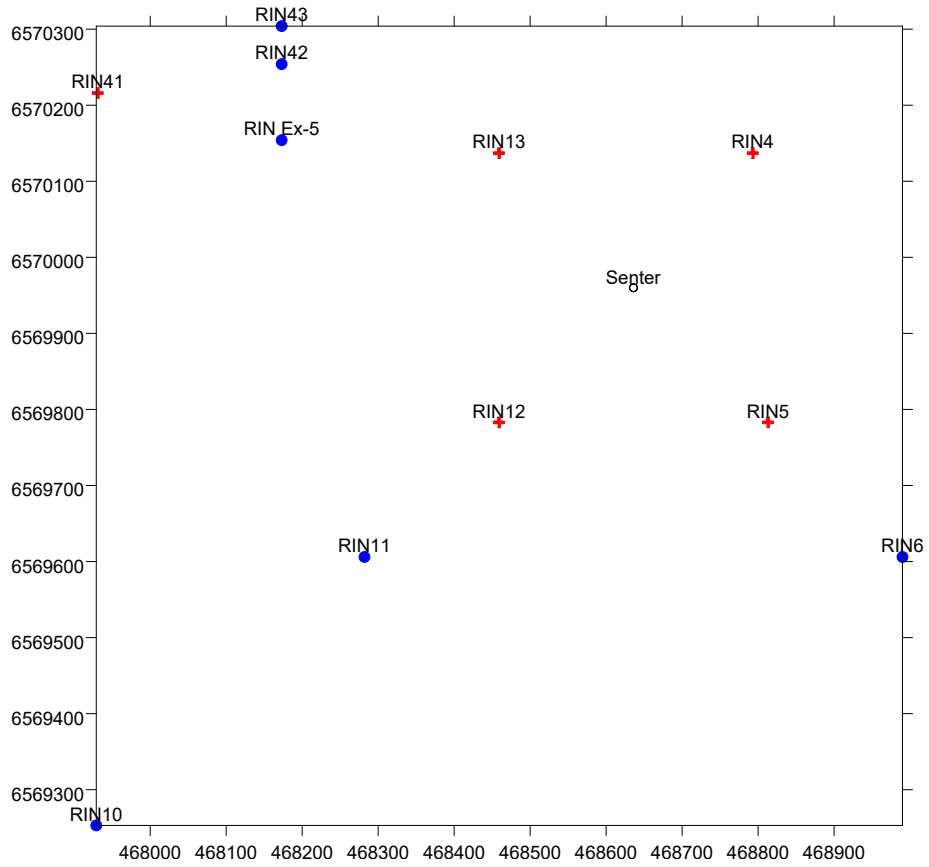
THC-konsentrasjonene var til dels svært høye nær lekkasjeområdet THC-konsentrasjonene hadde også økt mot sør og øst for lekkasjepunktet og var over 50 mg/kg på RIN11 som ligger 500 m sør for feltsenteret.

Dette kan indikere at spredningen også har gått lenger enn tidligere. Det er derfor foreslått å inkludere nye ytterstasjoner 1000 m mot sør, 500 m mot øst og 750 m mot nordvest målt fra feltsenteret.

I 2018 var RIN Ex-5 den mest forurensede stasjonen. Dersom det er ønskelig å avgrense det forurensede sedimentet også rundt denne stasjonen. Det er vurdert lite hensiktsmessig å undersøke videre inne i forurenset område hvor vi vet det er forurenset. Det foreslås derfor å inkluder RinEx-5 samt 2 nye stasjoner nord for denne for å avgrense evt. forurensing.

Tabell 3-38 Foreslått prøvetakingsprogram Ringhorne 2021. Koordinater i ED50 UTM31. Blå font: Stasjonen ble flyttet i 2018 men <50 m.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			468636	6569960						
RIN4	38	259	468793	6570137		5	1	3	3	
RIN5	135	250	468813	6569783		5	1	3	3	
RIN6	135	500	468990	6569606				3	3	
RIN12	225	250	468459	6569783		5	1	3	3	3
RIN11	225	500	468282	6569606				3	3	3
RIN10	225	1000	467929	6569253				3	3	
RIN13	315	250	468459	6570137		5	1	3	3	
RIN Ex-5			468173	6570154				3	3	3
RIN42			468173	6570254				3	3	3
RIN43			468173	6570304				3	3	3
RIN41	290	750	467931	6570216		5	1	3	3	3
Sum						**25**	**5**	**33**	**33**	**18**



Figur 3-37 Stasjoner Ringhorne 2021. Røde kryss: Biologi & kjemi, Blå sirkler: Kjemi.

3.17 Varg

Operatør på Varg er Repsol. Varg ligger i blokk 15/12 i den sørlige delen av den grunne subregionen. Produksjonen på feltet startet i desember 1998 og ble nedstengt i juni 2016.

Utslipp og boreaktivitet

Feltet er stengt ned

Posisjonsendring

VARG-12 ble flyttet mindre enn 50 m.

Tabell 3-39 Endrede posisjoner i 2018 for stasjoner på Varg.

Felt	Opprinnelig posisjon					Ny posisjon				
	Stasjon	ED50 UTM sone 31 E	ED50 UTM sone 31 N	Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31 E	ED50 UTM sone 31 N	Retning (°)	Avstand (m)
Varg	VARG-12	434387	6437602	200	500	VARG-12	434368	6437566	199	539

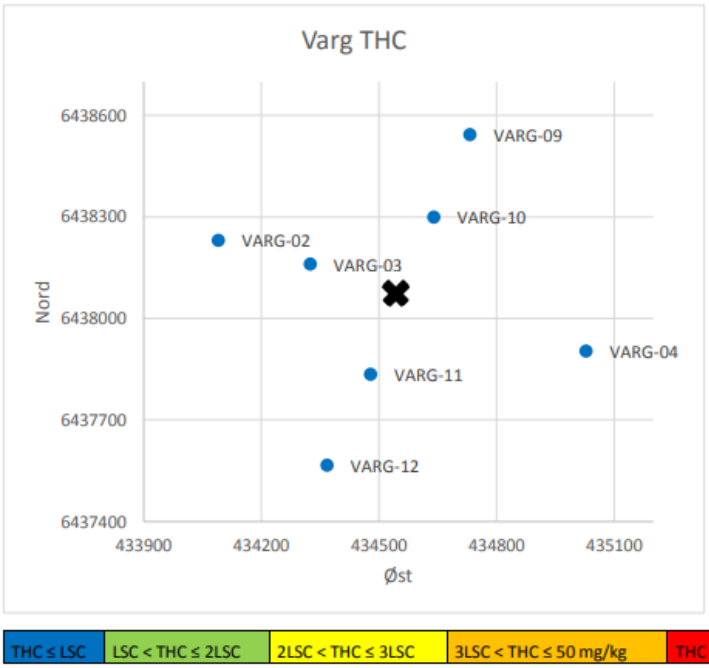
Resultater og konklusjoner fra undersøkelsen i 2018

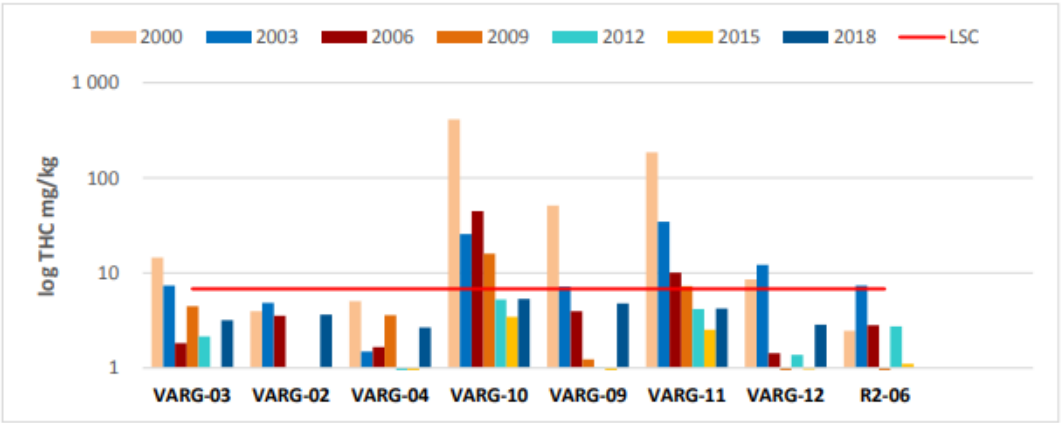
Sedimentet fra ved Varg ble karakterisert som «fin sand»

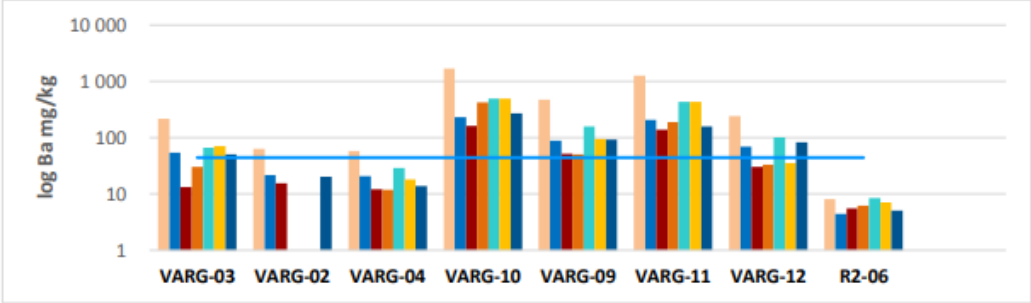
Konsentrasjonen av THC var lav og under LSC for de feltspesifikke stasjonene, men høyere enn tilhørende regionalstasjon. Konsentrasjonene av PAH og NPD var over LSC for begge de feltspesifikke stasjonene (250 meter nord og 250 meter sør for feltsenteret) men under LSC for den regionale stasjonen.

Konsentrasjonen av de fleste av metallene lå under LSC. Konsentrasjonene av As som ble undersøkt for første gang i denne regionen, er usikre i forhold til LSC på grunn av lite bakgrunnsdata. Ba lå over 2 x LSC på fem av syv stasjoner og Pb lå over LSC på tre av syv stasjoner. Ut over en tydelig reduksjon i konsentrasjonen av Ba på stasjon Varg 10 og Varg 11 ble det ikke observert store endringer i konsentrasjonen av de ulike metallene fra forrige undersøkelse.

Diversitetsindeksene er høye på samtlige undersøkte stasjoner, og på omtrent samme nivå som tidligere med unntak av undersøkelsen i 2006, da den var mye lavere ved samtlige stasjoner på feltet samt for tilknyttet regional stasjon R2-06. Basert på bunndyrsanalysene indikerer faunasammensetningen et upåvirket bunnhabitat på de undersøkte stasjonene ved Varg i 2018.







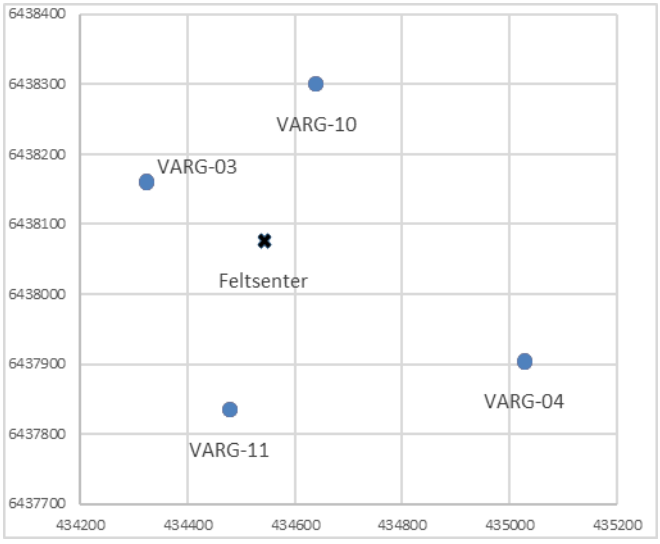
Figur 3-38 THC og Ba i sedimentet på Varg. For Ba er 2*LSC markert med blå strek.

Program 2021

THC-konsentrasjonene var lave på alle de undersøkte stasjonene. Metallkonsentrasjonene lå over LSC på de fleste stasjonene. Det er foreslått å beholde 4 av stasjonene i 2021.

Tabell 3-40 Foreslått prøvetakingsprogram Varg 2021. Rød farge: Stasjon utgår. Koordinater i ED50 UTM31. Blå font: Stasjonen ble flyttet i 2018 men <50 m.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Feltsenter	0	0	434543	6438076		5	1	3	3	3
VAR3	290	250	435733	6438076	84	5	1	3	3	
VAR2	290	500	434325	6438160	84					
VAR4	110	500	434090	6438231	80		1	3	3	
VAR10	20	250	435029	6437904	82	5	1	3	3	3
VAR9	20	500	434640	6438300	82					
VAR11	200	250	434732	6438543	82	5	1	3	3	3
VAR12	200	500	434479	6437835	82					
Sum						**20**	**5**	**15**	**15**	**9**



Figur 3-39 Stasjoner Varg 2021.

3.18 Byggve

Byggve ligger i blokk 25/5, og er en del av Skirnefeltet. Det er en undervannsbrønn på feltet. Total er operatør på Byggve. Byggve tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet i perioden 2018-2021 er vist i tabellen under.

Tabell 3-41 Utslippsdata og boreaktivitet for Byggve i perioden 2018-2021.

Byggve	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret			
Utslipp (tonn)			
Baritt			
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier			
Kompletteringskjemikalier			
Olje i produsert vann/forurenset vann			
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

Posisjonsendring

BYGGVE-01 og BYGGVE-11 ble flyttet mindre enn 50 m.

Tabell 3-42 Endrede posisjoner i 2018, Byggve.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
BYGGVE-01	471571	6609244	10	250	BYGGVE-01	471564	6609261	9	265
BYGGVE-11	471282	6609041	288	250	BYGGVE-11	471270	6609068	285	267

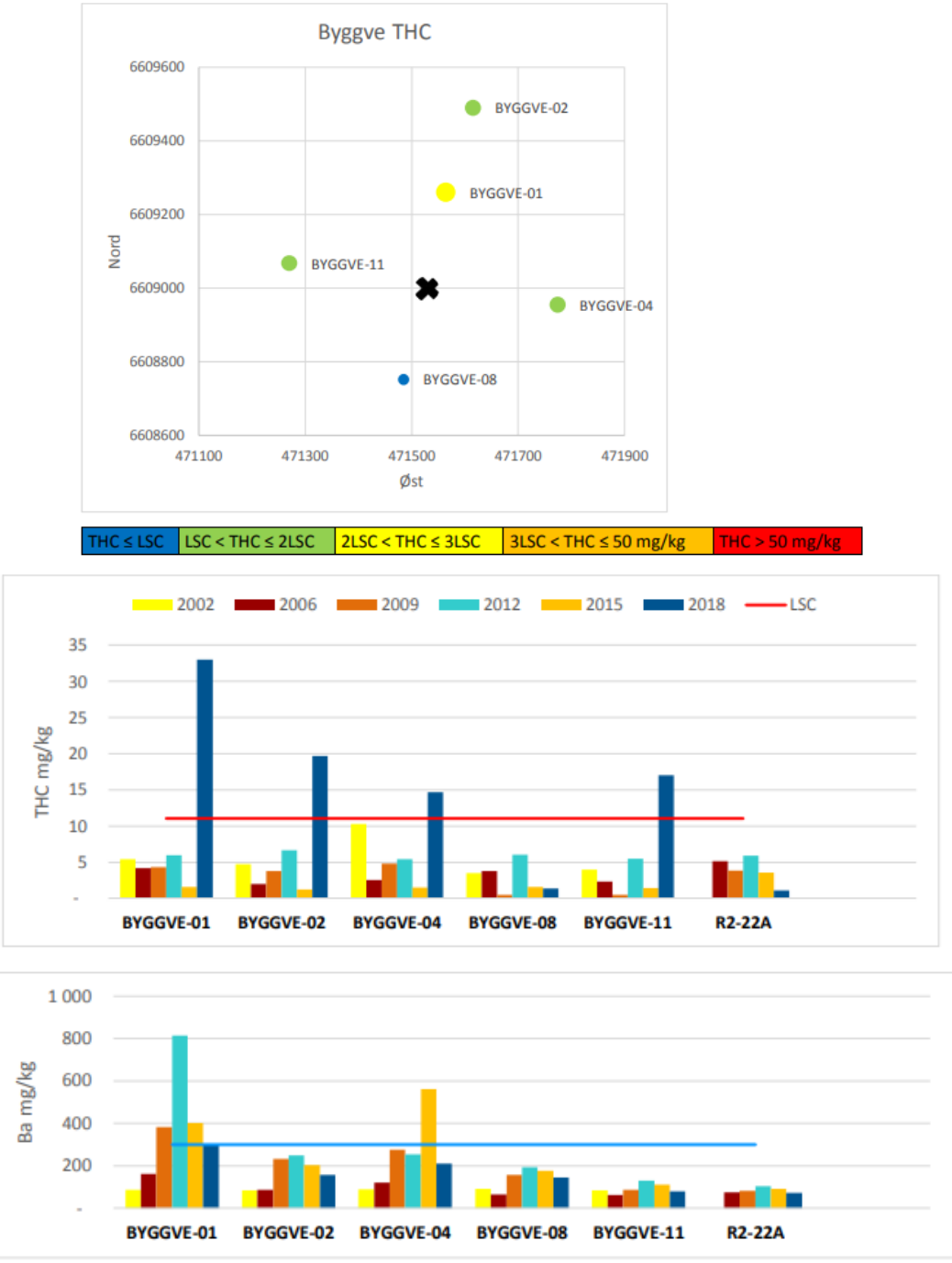
Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC på samtlige stasjoner med unntak av stasjonen 250 meter sør for feltsenteret (BYGGVE-08). Høyeste konsentrasjon (33 mg/kg) ble funnet på stasjonen BYGGVE-01, 250 m nord for feltsenteret. Det har vært en betydelig økning i THC konsentrasjonen på samtlige stasjoner mot nord, vest og øst for feltsenteret siden forrige undersøkelse. I perioden 2013 til 2018 har det vært en

lekkasje av gass/kondensat, men det er ikke sannsynlig at dette har påvirket THC-konsentrasjonen i sedimentet. Det er ellers ikke rapportert om boreaktivitet eller andre utslipp.

Konsentrasjonen av PAH og NPD var høyere på de to undersøkte feltstasjonene sammenlignet med tilhørende regional stasjon, og høyere enn LSC for NPD.

Generelt sett er konsentrasjonene av de undersøkte metallene høyere på de feltspesifikke stasjonene sammenlignet med den tilhørende regionale stasjonen. Konsentrasjonen av metaller i sedimentet var lav med kun enkeltverdier så vidt over LSC. Konsentrasjonene av metaller var på nivå med forrige undersøkelse med unntak av kvikksølv mot nord og kadmium mot vest av feltsenteret.



Figur 3-40 THC og Ba i sedimentet på Byggve. For Ba er 2*LSC markert med blå strek.

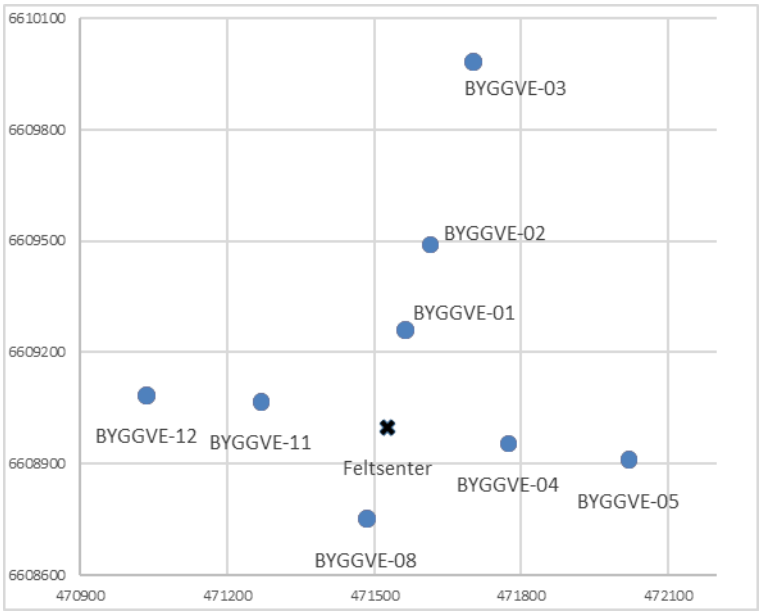
Program 2021

Det ble funnet THC-konsentrasjoner over LSC på alle stasjonene, med unntak av stasjonen som ligger sør for feltsenteret. Høyest konsentrasjon var det på stasjonen 250 m nord for feltsenteret med 33 mg/kg. Det er foreslått å legge til ytterstasjoner øst, nord og vest for feltsenteret.

Note: Ingen av Totals assets skal undersøkes i år, beskjed fra Total (mail 17.03.2021)

Tabell 3-43 Foreslått prøvetakingsprogram Byggve 2021. Grønn farge: Ny stasjon. Koordinater i ED50 UTM31. Blå font: Stasjonen ble flyttet i 2018 men <50 m.

BYGGVE	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			471528	6608998						
BYGGVE-1	10	250	471564	6609261	118					
BYGGVE-2	10	500	471615	6609490	118					
BYGGVE-3	10	1000	471702	6609983						
BYGGVE-4	100	250	471774	6608955						
BYGGVE-5	100	500	472020	6608911						
BYGGVE-8	190	250	471485	6608752	118					
BYGGVE-11	288	250	471270	6609068	118					
BYGGVE-12	280	500	471036	6609085	124					
Sum										



Figur 3-41 Stasjoner Byggve 2021.

3.19 Atla (tidligere David)

Operatør på Atla er Total. Atla (tidligere betegnet som David) ligger 11 km nordøst for Heimdal og mellom tidligere Frøy og Skirne/Byggve feltene. Dypet ved Atla er 113-114m.

Fem stasjoner ble undersøkt ved David-feltet i 2010 før leteboring i henhold til TOTAL E&P internkrav. Sedimentet ble analysert for THC, PAH/NPD og metaller. På bakgrunn av dette ble det gjennomført en

redusert grunnlagsundersøkelse i 2011. Undersøkelsen i 2015 var førstegangs oppfølging og i 2018 overvåking. Atla tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Atla er vist i tabellen under.

Tabell 3-44 Utslippsdata og boreaktivitet for Atla i perioden 2018-2021.

Atla	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret			
Utslipp (tonn)			
Baritt			
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier			
Kompletteringskjemikalier			
Olje i produsert vann/forurenset vann			
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC i sedimentet var lave og under LSC, med unntak av stasjon DA5 (250 meter sør for feltsenteret) hvor konsentrasjonen av THC var litt over LSC. Det ble observert en tydelig økning i konsentrasjonen av THC ved samtlige feltspesifikke stasjoner siden forrige undersøkelse samtidig som det på den regionale stasjonen var en reduksjon. Konsentrasjonen av PAH og NPD var under LSC.

Generelt sett er konsentrasjonene av de ulike metallene i sedimentet lave og under LSC på de feltspesifikke stasjonene med unntak av As på stasjon DA1 som ligger så vidt over LSC. Konsentrasjonene av Ba og Cd i sedimentet på stasjonen sør for feltsenteret og konsentrasjonen av Hg på samtlige av de feltspesifikke stasjonene var lavere i 2018 enn 2015. Ellers var konsentrasjonene på samme nivå som ved forrige undersøkelse.



Figur 3-42 THC og Ba i sedimentet på Atla. For Ba er 2*LSC markert med blå strek.

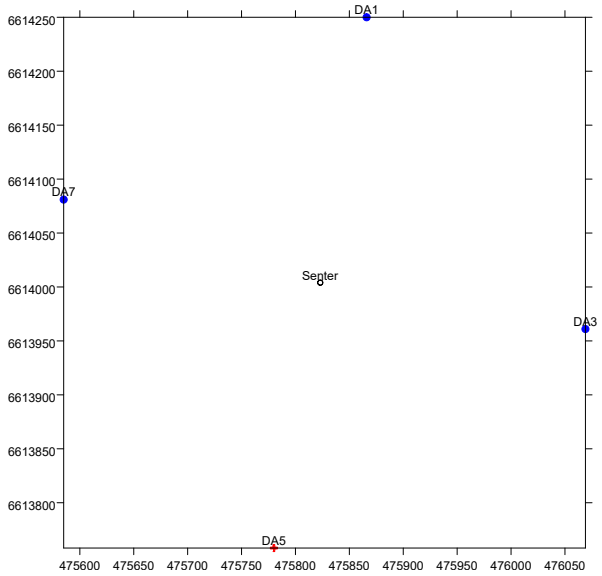
Program 2021

Stasjonen som ligger 250 meter sørvest for feltsenteret hadde THC-konsentrasjon (16,9 mg/kg) og var litt høyere enn LSC (11,0 mg/kg). På de øvrige stasjonene lå THC- konsentrasjonen litt under LSC. Metall konsentrasjonene var lave på alle de undersøkte stasjonene i 2018. Det er foreslått å undersøke de samme stasjonene i 2021 som i 2018.

Note: Ingen av Totals assets skal undersøkes i år, beskjed fra Total (mail 17.03.2021)

Tabell 3-45 Foreslått prøvetakingsprogram Atla 2021. Koordinater i ED50 UTM31.

Atla	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			475823	6614004						
DA1	10	250	475866	6614250	114					
DA3	100	250	476069	6613961	113					
DA5	190	250	475780	6613758	114					
DA7	288	250	475585	6614081	114					
Sum										



Figur 3-43 Stasjoner Atla 2021. Røde kryss: Biologi & kjemi, blå sirkler: Kjemi.

3.20 Skirne

Operatør på Skirne er Total. Gass- og kondensatfeltet Skirne ligger i blokk 25/5om lag 140 kilometer nordvest for Stavanger. Feltet ble oppdaget i 1990 og er bygget ut med to havbunnsbrønner, Skirne og Byggve som er knyttet sammen med en rørledning knyttet til Heimdal gass-senter for prosessering og eksport. Skirnefeltet, med produksjonslisens PL 102, er beliggende i blokk 25/5 øst for Heimdal på 120 meters vanndyp. Skirne ble påvist etter leteboring utført i perioden 1990-91. Produksjonsboring ble utført i 2003 og produksjonen startet i 2004. Skirne tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Skirne er vist i tabellen under.

Tabell 3-46 Utslippsdata og boreaktivitet for Skirne i perioden 2018-2021.

Skirne	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret			
Utslipp (tonn)			
Baritt			
Borekaks			
Vannbasert borevæske			
Sementeringskjemikalier			
Kompletteringskjemikalier			
Olje i produsert vann/forurenset vann			
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

Posisjonsendringer

SKIRNE-01 og SKIRNE-11 ble flyttet mindre enn 50 m.

Tabell 3-47 Stasjoner som er flyttet på Skirne i 2018.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
SKIRNE-01	479775	6605581	10	250	SKIRNE-01	479794	6605590	14	250
SKIRNE-11	479486	6605378	274	263	SKIRNE-11	479475	6605366	277	259

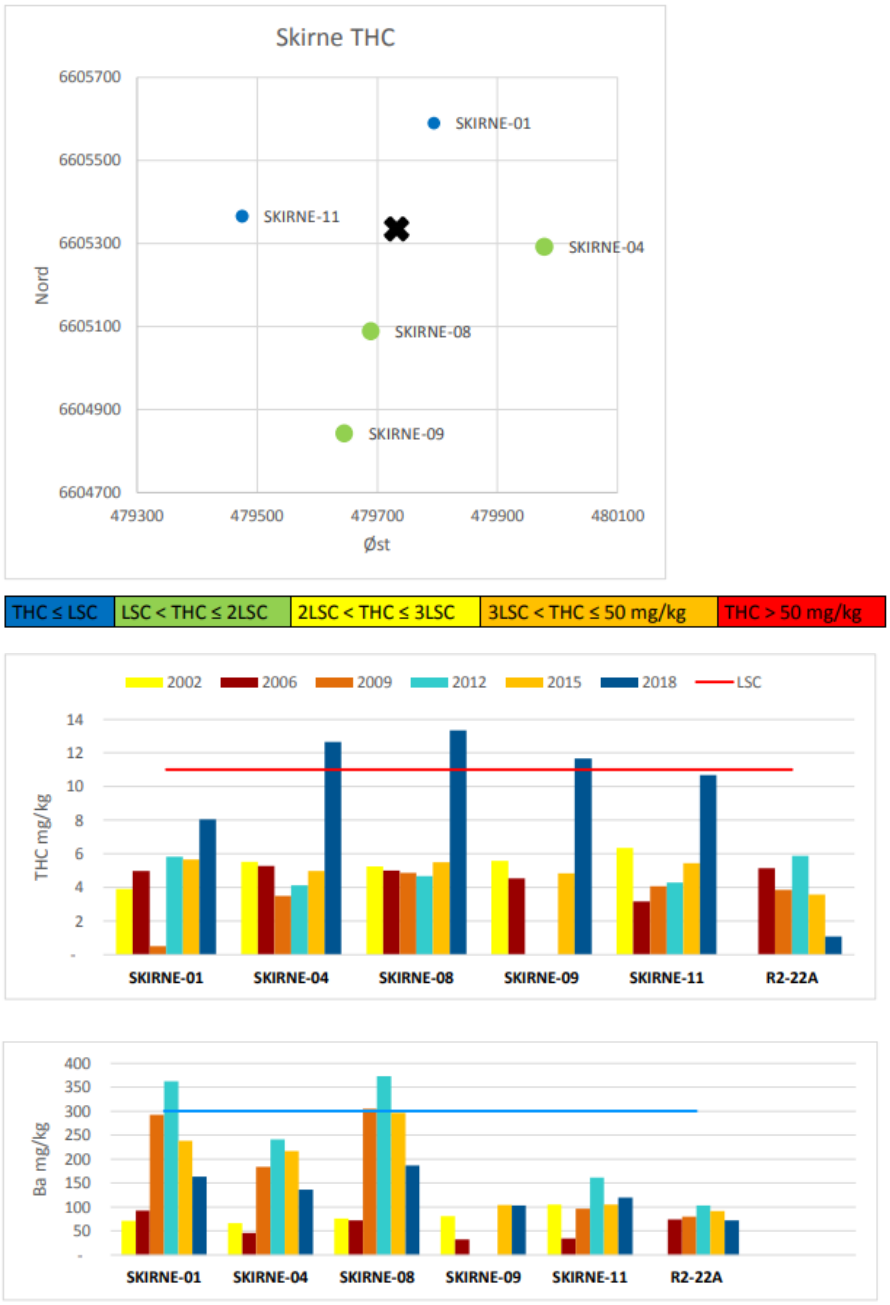
Resultater og konklusjoner fra undersøkelsen i 2018

Innholdet av pelitt har gått noe ned på samtlige stasjoner med unntak av stasjonen 250 mot vest som er på samme nivå som ved forrige undersøkelse. Andel totalt organisk karbon (TOC) lå mellom 0,34 og 0,62 %.

Konsentrasjonene av THC var over LSC på stasjoner øst og sør for feltsenteret. Høyeste konsentrasjon (13,3 mg/kg) ble funnet på stasjonen SKIRNE-08, 250 m sør for feltsenteret. Det har vært en tydelig økning i konsentrasjonen av THC i sedimentet på samtlige stasjoner siden forrige undersøkelse med unntak av stasjonen 250 m mot nord (SKIRNE-01) hvor det kun har vært en liten økning.

Generelt sett er konsentrasjonene av de ulike metallene i sedimentet lave, men høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Kun As på lå litt over LSC på fire av stasjonene. Konsentrasjonen av de øvrige metallene ligger stort sett på samme nivå med forrige undersøkelse.

Diversitetsindeksene er høye på samtlige stasjoner, og på omtrent samme nivå som tidligere. Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Skirne i 2018.



Figur 3-44 THC og Ba i sedimentet på Skirne. For Ba er 2*LSC markert med blå strek.

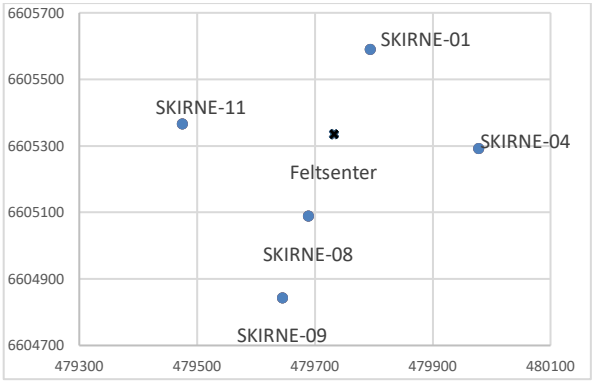
Program 2021

THC lå så vidt over LSC på tre stasjoner i sørlig og østlig retning (11,7-13.3 mg/kg). Hovedstrømretningen er antatt å gå i sørlig retning i dette området. Metallkonsentrasjonene var lave og lå under LSC for alle metaller på alle stasjonene med unntak av arsen. Siden LSC for arsen er usikker pga. lite bakgrunnsdata, så er ikke denne vektlagt. Faunaen hadde høy diversitet og lå over 5,2. Det er foreslått å undersøke de samme stasjonene i 2021 som i 2018.

Note: Ingen av Totals assets skal undersøkes i år, beskjed fra Total (mail 17.03.2021)

Tabell 3-48 Foreslått prøvetakingsprogram Skirne 2021. Koordinater i ED50 UTM31. Blå font: Stasjonen flyttet <50 m i 2018.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			479732	6605335						
SKIRNE-01	10	250	479794	6605590	115					
SKIRNE-04	100	250	479978	6605292	117					
SKIRNE-08	190	250	479689	6605089	116					
SKIRNE-09	190	500	479645	6604843	115					
SKIRNE-11	274	263	479475	6605366	116					
Sum										



Figur 3-45 Stasjoner Skirne 2018.

3.21 Bøyla

Operatør på Bøyla er Aker BP. Bøyla-feltet (tidligere Marihøne) ble funnet i 2009, med funnbrønnen 24/9-9 S. Feltet bygges ut med en havbunnsinstallasjon med tilknytning til infrastrukturen på Alvheimfeltet. Produksjonsskipet Alvheim FPSO vil motta og prosessere produksjonen fra Bøyla. Bøyla ligger omtrent 28 kilometer sør for Alvheimfeltet. Bøyla tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Bøyla er vist i tabellen under.

Tabell 3-49 Utslippsdata og boreaktivitet for Bøyla i perioden 2018-2021.

Bøyla	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	4	0
Utslipp (tonn)			
Baritt	0	695.1	0
Borekaks	0	2037.9	0
Vannbasert borevæske	0	4667.9	0
Sementeringskjemikalier	0	127	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Posisjonsendringer

En stasjon, BOY1, ble flyttet mindre enn 50 meter.

Tabell 3-50 Stasjon som ble flyttet i 2018, Bøyla.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
BOY1	433640	6579079	40	250	BOY1	433623	6579098	34	255

Resultater og konklusjoner fra undersøkelsen i 2018

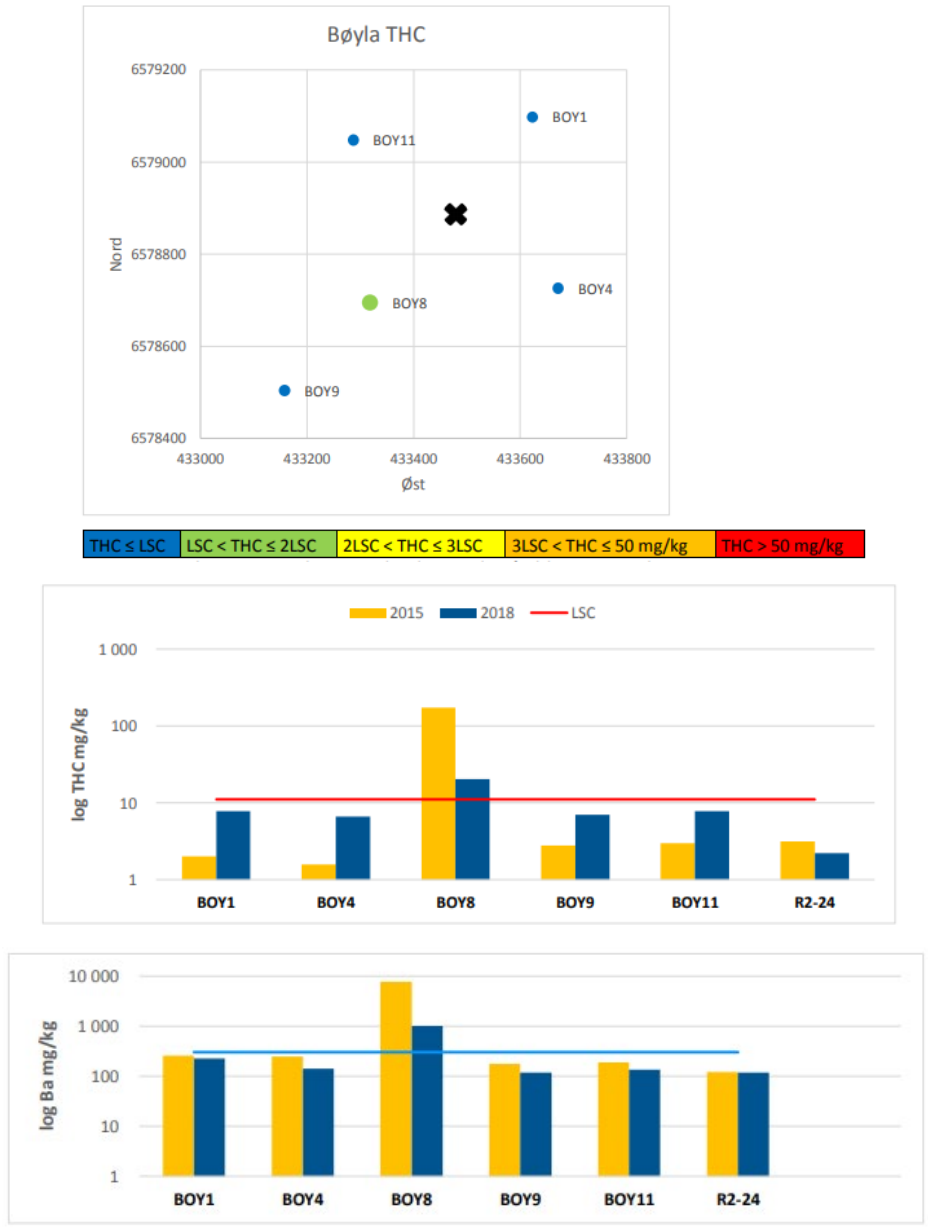
I 2018 ble sedimentet fra stasjonene tilknyttet Bøyla klassifisert som «fin sand». De resterende stasjonene hadde «veldig fin sand». Andelen pelitt har sunket litt på de undersøkte stasjonene. Andel totalt organisk karbon (TOC) lå litt lavere enn ved undersøkelsen i 2015.

Konsentrasjonene av THC lå under LSC på samtlige feltspesifikke stasjoner med unntak av BOY8. Konsentrasjonen av PAH lå under LSC, mens NPD var over. Det var en generell økning i konsentrasjonen av THC i sedimentet på samtlige stasjoner med unntak av BOY8 som har hatt en reduksjon etter de svært høye verdiene som ble funnet i 2015. Den generelle økningen kan trolig sees i sammenheng med boreaktivitet i 2018.

Generelt sett er konsentrasjonene av de ulike metallene høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. Konsentrasjonene var under LSC på alle stasjonene med unntak av BOY8 hvor samtlige metaller utenom Hg hadde konsentrasjoner over LSC og noen av verdiene var svært høye. Resultatene fra 2018 på de fleste stasjonene fremstår som relativt lik de fra forrige undersøkelse. Konsentrasjonene av Hg var redusert på alle stasjonene siden forrige undersøkelse. På stasjon BOY8 var det en reduksjon i alle de undersøkte metallene fra de svært høye konsentrasjonene som ble observert i 2015.

Det relativt høye standardavvikene knyttet til de kjemiske analysene på BOY8 skyldes at prøvene fra de forskjellige huggene ikke fremsto som like, da det var i varierende grad et slags belegg oppå sedimentet noe som også ble observert i 2015.

Det har vært en bedring i faunatilstanden på BOY8 siden forrige undersøkelse. Diversitetsindeksene er høye på begge undersøkte stasjoner, og har økt sammenlignet med undersøkelsen i 2015. Den tilknyttete regionalstasjonen R2-24 synes å følge det samme mønsteret som de feltspesifikke stasjonene. Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på begge feltspesifikke stasjoner for Bøyla.



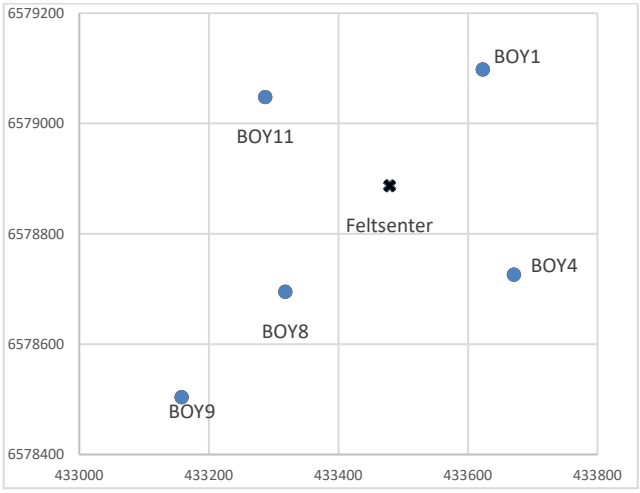
Figur 3-46 THC og Ba i sedimentet på Bøyla. For Ba er 2*LSC markert med blå strek.

Program 2021

THC-konsentrasjonene var under LSC, med unntak av stasjonen som ligger 250 meter i sørvestlig retning hvor THC-konsentrasjonen var 20,3 mg/kg. Den samme stasjonen hadde metallkonsentrasjoner langt over LSC for syv av de undersøkte metallene (ikke for Hg). Det er foreslått å undersøke de samme stasjonene i 2021 som ble undersøkt i 2018.

Tabell 3-51 Foreslått prøvetakingsprogram Bøyla 2021. Koordinater i ED50 UTM31. Blå font: Stasjonen flyttet <50 m i 2018.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			433479	6578887						
BOY1	40	250	433623	6579098	120	5	1	3	3	
BOY4	130	250	433671	6578726	120	5	1	3	3	
BOY8	220	250	433318	6578695	121	5	1	3	3	3
BOY9	220	500	433158	6578504	120			3	3	3
BOY11	310	250	433287	6579048	121	5	1	3	3	
Sum						**20**	**4**	**15**	**15**	**6**



Figur 3-47 Stasjoner Bøyla 2021.

3.22 Volund

Operatør på Volund er Aker BP. Volund ligger i blokk 24/9 og har havbunnsinnretninger og rørledninger tilknyttet Alvheim. Grunnlagsundersøkelsen for Volund ble gjennomført i 2006. I 2009 ble feltet ikke undersøkt og undersøkelsen i 2013 var derfor den første regulære overvåknings-undersøkelsen. Volund tilhører den sentrale subregionen i Region 2.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Volund er vist i tabellen under.

Tabell 3-52 Utslippsdata og boreaktivitet for Volund i perioden 2018-2021.

Volund	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	1	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	1108.8	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	29	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Posisjonsendringer

Fire stasjoner ble flyttet mer enn 50 m og fikk nye navn, en stasjon ble flyttet mindre enn 50 meter.

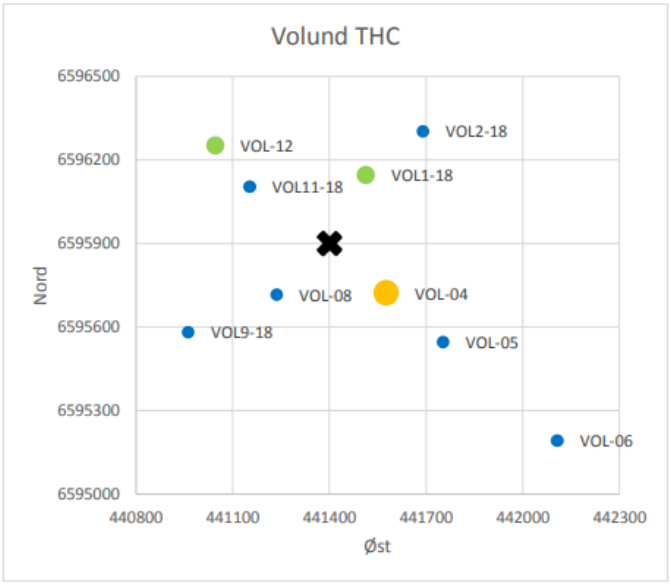
Tabell 3-53 Stasjoner som ble flyttet på Volund i 2018.

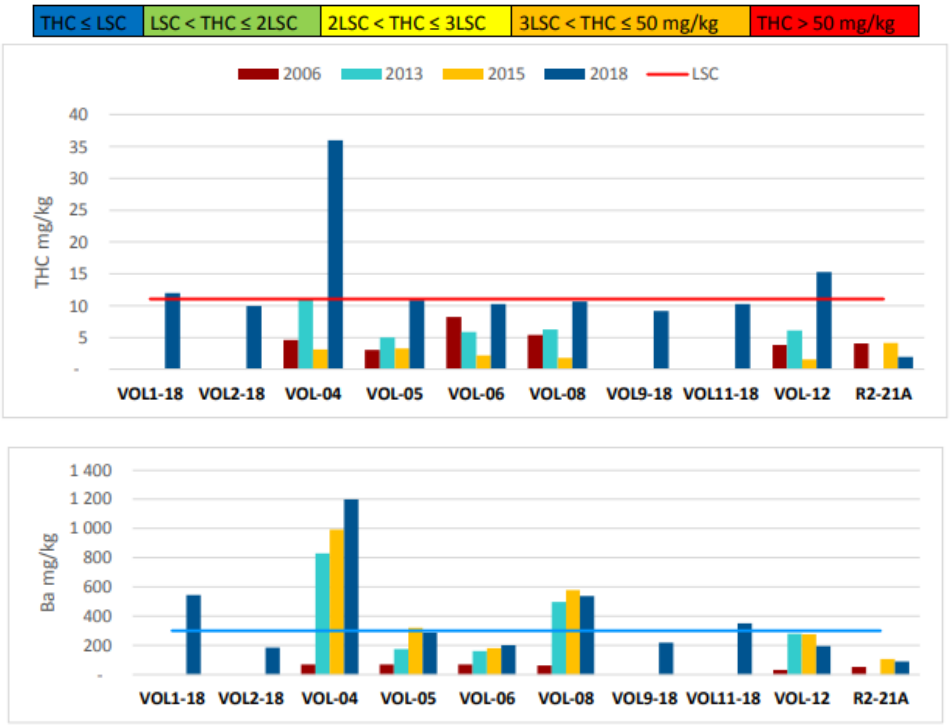
Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
VOL1	441576	6596076	45	250	VOL1-18	441513	6596146	25	271
VOL2	441769	6596237	45	500	VOL2-18	441690	6596303	36	497
VOL8	441223	6595723	225	250	VOL8	441236	6595716	222	246
VOL9	441036	6595562	225	500	VOL9-18	440962	6595582	234	541
VOL11	441223	6596076	315	250	VOL11-18	441153	6596104	310	320

Resultater og konklusjoner fra undersøkelsen i 2018

I 2018 ble sedimentet fra stasjon VOL1-18 karakterisert som «fin sand». De resterende stasjonene hadde «svært fin sand». På de stasjonene hvor det finnes historiske data var det en liten reduksjon i innholdet av pelitt i sedimentet siden forrige undersøkelse. Andel totalt organisk karbon (TOC) lå mellom 0,50 og 0,53 %, som er litt lavere enn ved forrige undersøkelse.
Konsentrasjonen av THC i sedimentet var høyere enn tilhørende regionalstasjon og var under LSC, med unntak av tre stasjoner som hadde konsentrasjoner over LSC. Høyeste konsentrasjon (36 mg/kg) ble funnet på stasjonen 250 m sørøst for feltsenteret. Det var en økning i konsentrasjonen av THC i sedimentet på samtlige stasjoner, spesielt ved stasjonen 250 m sørøst for feltsenter. Dette kan antagelig sees i sammenheng med boring av brønner i samme periode. Konsentrasjonen av PAH og NPD var over LSC på de to undersøkte stasjonene.
Generelt sett er konsentrasjonene av de ulike metallene i sedimentet høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. De høyeste konsentrasjonene ble funnet på stasjonen 250 meter sørøst for feltsenteret som hadde konsentrasjoner over LSC for samtlige metaller med unntak av Hg. Videre ble det observert konsentrasjoner over LSC på flere stasjoner for Ba, Cd, Cu og As. Konsentrasjonen av de ulike metallene er relativ uendret fra forrige undersøkelse på de øvrige stasjonene.

Antall individer og antall arter har også økt siden siste undersøkelse i 2015. Diversitetsindeksene er relativt høye, og lite endret siden 2015, men samtlige er lavere enn i 2006. Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Volund.





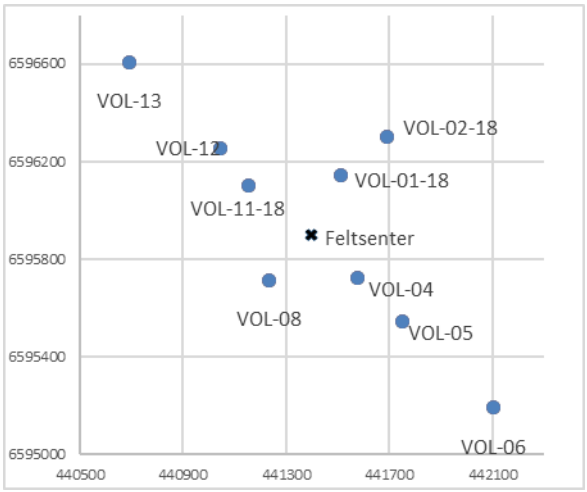
Figur 3-48 THC og Ba i sedimentet på Volund. For Ba er 2*LSC markert med blå strek.

Program 2021

THC lå over LSC mot sørøst, nordøst og nordvest. Høyest THC- og metall- konsentrasjoner var på stasjonen 250 meter mot sørøst. Det er foreslått å legge til en stasjon mot nordvest og fjerne en stasjon mot sørvest.

Tabell 3-54 Foreslått prøvetakingsprogram Volund 2021. Koordinater i ED50 UTM31. Rød font: Stasjonen flyttet >50 m og blå font <50 m i 2018. Rød: Stasjon utgår, grønn: Stasjon tas inn i prgrammet.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			441400	6595900						
VOL-01-18	25	271	441513	6596146	127	5	1	3	3	
VOL-02-18	36	497	441690	6596303	126			3	3	
VOL-04	135	250	441576	6595723	128	5	1	3	3	3
VOL-05	135	500	441753	6595546	126			3	3	3
VOL-06	135	1000	442107	6595192	128			3	3	
VOL-08	222	246	441236	6595716	128	5	1	3	3	
VOL-09	225	500	440962	6595582	126					
VOL-11-18	310	320	441153	6596104	126	5	1	3	3	
VOL-12	315	500	441046	6596253	127			3	3	
VOL-13	315	1000	440692	6596607				3	3	
Sum						**20**	**4**	**27**	**27**	**6**



Figur 3-49 Stasjoner Volund 2021.

3.23 Alvheim

Operatør er Aker BP. Alvheim ligger i den nordlige delen av Region II, nær grensen til britisk sektor. Alvheim-området er sammensatt av feltene Kneler, Boa og Kameleon. Produksjonen fra feltet tok til i 2008. Oljen blir eksportert med tankskip. Prosessert rikgass går i en rørledning fra Alvheim til Scottish Area Gas Evacuation (SAGE)-systemet på britisk sektor.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Alvheim er vist i tabellen under.

Tabell 3-55 Utslippsdata og boreaktivitet for Alvheim i perioden 2018-2021.

Alvheim	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	3	1	2
Utslipp (tonn)			
Baritt	684.3	121.4	0
Borekaks	521.6	0	1486
Vannbasert borevæske	1390.5	1007	2761.9
Sementeringskjemikalier	75	26.5	30
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	41	45	14
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0.0	1.0	4.5

Posisjonsendringer

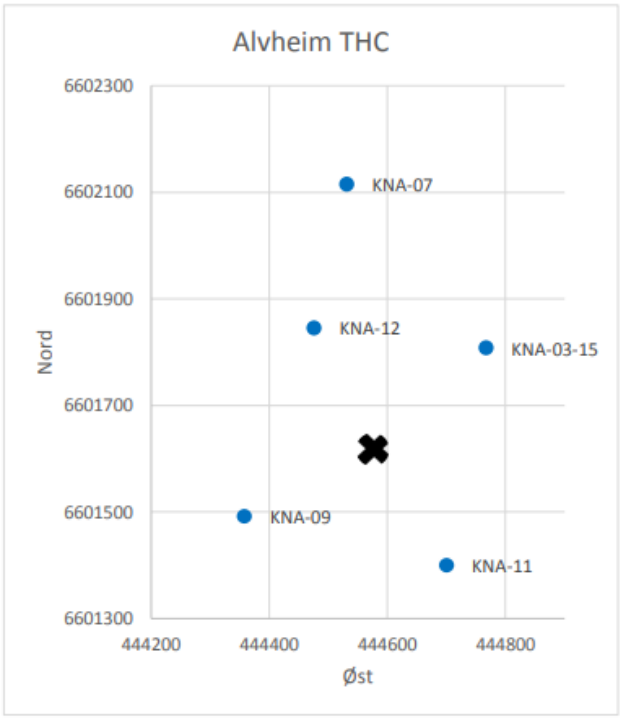
Stasjon KNA-12 ble flyttet mindre enn 50 m i 2018.

Tabell 3-56 Informasjon om stasjon KNA-12 som ble flyttet på Alvheim i 2018.

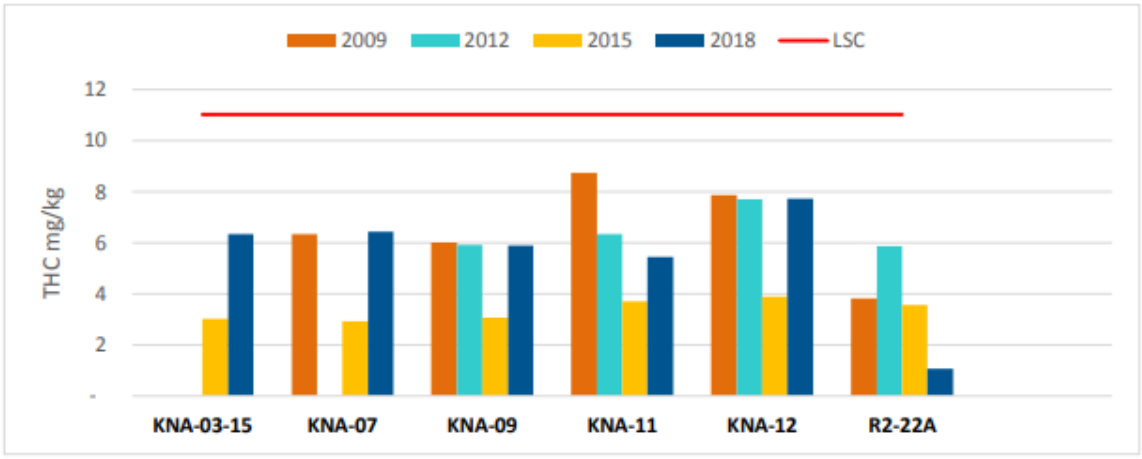
Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
KNA-12	444450	6601834	330	250	KNA-12	444476	6601845	337	248

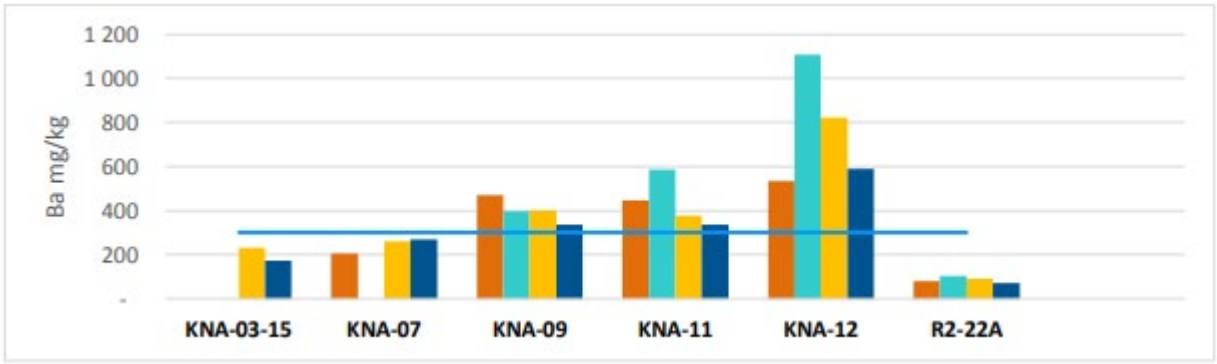
Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var lave og under LSC, men høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon (7,7 mg/kg) ble funnet på stasjonen 250 m nordvest for feltsenteret. På stasjonen 270 m nordøst for feltsenteret var konsentrasjonen av NPD over LSC. Det har vært en økning i konsentrasjonen av THC i sedimentet på alle de feltspesifikke stasjonene siden forrige undersøkelse, mens på regionalstasjonen har THC konsentrasjonen gått ned. Dette har trolig sammenheng med boring av flere brønner med tilhørende utslipp.
Generelt sett er konsentrasjonene av metaller høyere på de feltspesifikke stasjonene sammenlignet med den tilhørende regionale stasjonen. Konsentrasjonen av metaller i sedimentet var lave og overskred LSC for Ba på stasjonene nordvest, sørvest og nordøst for feltsenteret. Konsentrasjonene av As lå litt over LSC på to stasjoner. Sett i forhold til forrige undersøkelse observeres det kun små endringer i konsentrasjonen av metaller i sedimentet med unntak av en tydelig reduksjon i innholdet av Hg på samtlige stasjoner.
Sedimentet fra de undersøkte stasjonene ved Alvheim hadde radioaktivitet som var lavere eller på nivå med regionalstasjonen R2-21A.









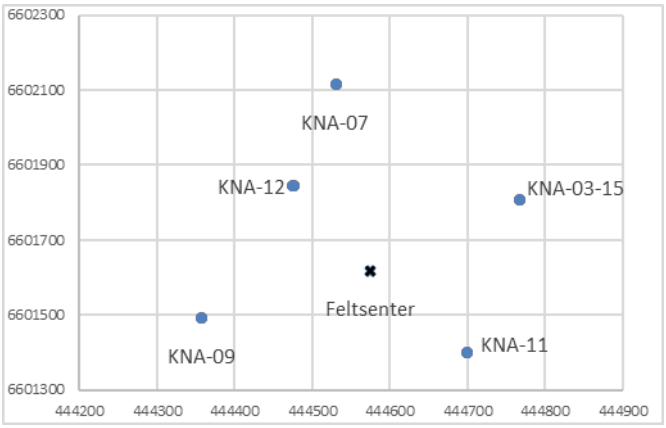
Figur 3-50 THC og Ba i sedimentet på Alvheim. For Ba er 2*LSC markert med blå strek.

Program 2021

THC var lavere enn LSC på de undersøkte stasjonene i 2018. De høyeste konsentrasjonene av THC ble funnet på stasjonen 250 meter nordvest for feltsenteret. Barium var over 2xLSC på tre av 250m stasjonene. De samme stasjonene som i 2018 er foreslått undersøkt i 2021.

Tabell 3-57 Foreslått prøvetakingsprogram Alvheim 2021. Koordinater i ED50 UTM31. Blå font <50 m i 2018.

Alvheim	Retn.	Avst.			Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH	Radio
Senter			444575	6601617							
KNA-03-15	45	271	444767	6601808	118	5	1	3	3		3
KNA-07	355	500	444531	6602115	122			3	3	3	3
KNA-09	240	250	444358	6601492	123	5	1	3	3		3
KNA-11	150	250	444700	6601400	119	5	1	3	3		3
KNA-12	337	248	444476	6601845	121	5	1	3	3	3	3
Sum						**20**	**4**	**15**	**15**	**6**	**15**



Figur 3-51 Stasjoner Alvheim 2021.

3.24 Vilje

Operatør på Vilje er Aker BP. Viljefeltet ligger i den nordlige delen av Region II, rett nord for Heimdalfeltet. Vilje tilhører den sentrale subregionen. Produksjonen startet i 2008. Feltet er bygget ut med to brønnrammer og produksjonsbrønner på havbunnen. Derfra går oljen i en ny 19 kilometer lang rørledning til Alvheim. Oljen på Vilje drives naturlig opp uten noen form for stimulans. Feltet står i forbindelse med en stor vannsone, og det er derfor ikke nødvendig med vanninjeksjon.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Vilje er vist i tabellen under.

Tabell 3-58 Utslippsdata og boreaktivitet for Vilje i perioden 2018-2021.

Vilje	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Posisjonsendringer

Stasjon VIL1 ble flyttet mer enn 50 m i 2018 og har skiftet navn til VIL1-18.

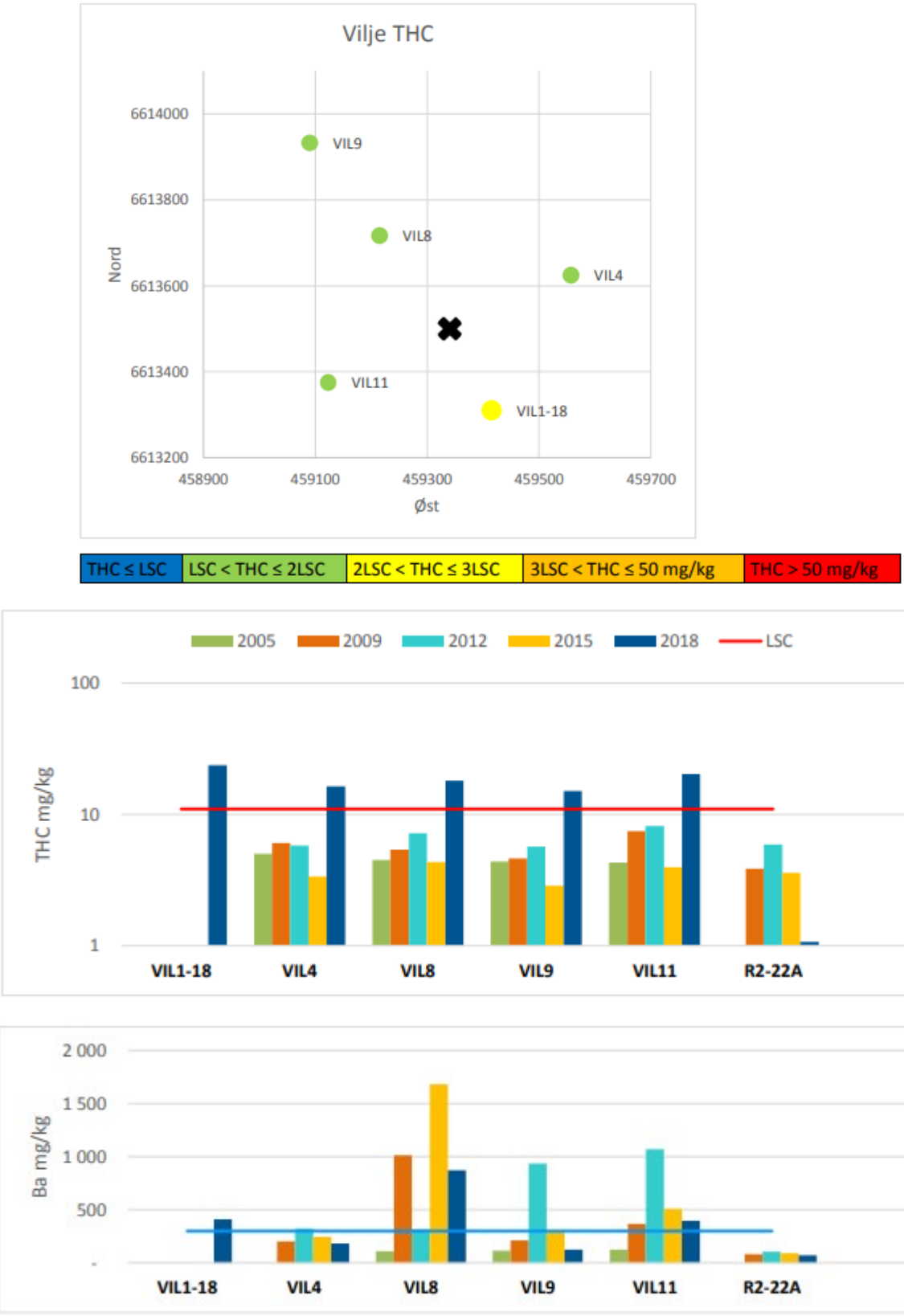
Tabell 3-59 Informasjon om stasjon KNA-12 som ble flyttet på Vilje i 2018.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
VIL1	459465	6613283	150	250	VIL1-18	459214	6613717	150	250

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var over LSC for samtlige feltspesifikke stasjoner og høyere enn tilhørende regionalstasjon. Høyeste konsentrasjon (23,7 mg/kg) ble funnet på stasjonen VIL1-18, 250 m sørøst for feltsenteret. Konsentrasjonene av THC i sedimentet har økt betraktelig på samtlige feltspesifikke stasjoner siden sist undersøkelse. Dette er uventet med tanke på at det ikke har vært boreaktivitet eller utslipp de siste årene.

Konsentrasjonene av de ulike metallene var generelt høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. På stasjonen 250 m sørøst for feltsenteret lå Ba, Cd og Cu over LSC, 250 m nordvest for senteret var Ba og Cu over LSC og 250 m mot sørvest Ba over LSC. De øvrige analyserte metallene lå under LSC for samtlige stasjoner. Foruten en nedgang i konsentrasjonen av Ba 250 m mot nordvest (VIL8) og en tydelig generell nedgang i konsentrasjonene av Hg i sedimentet var prøvene tatt i 2018 på samme nivå som ved forrige undersøkelse.



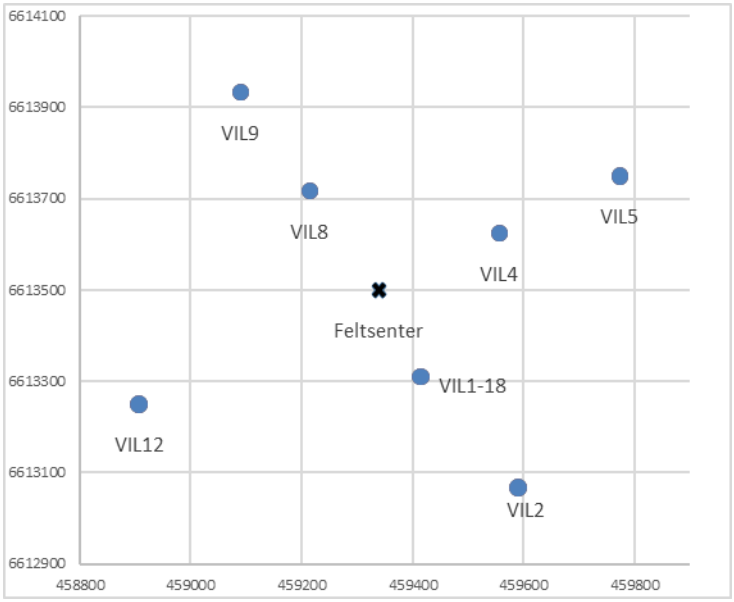
Figur 3-52 THC og Ba i sedimentet på Vilje. For Ba er 2*LSC markert med blå strek.

Program 2021

Konsentrasjonene av THC i sedimentet økte på samtlige feltspesifikke stasjoner siden forrige undersøkelse, noe som er uventet med tanke på at det ikke har vært boreaktivitet eller meldt om utslipp de siste årene. Høyeste konsentrasjon av THC (23,7 mg/kg) var 250 m mot sørøst som er antatt hovedstrømretning. Barium hadde høyest konsentrasjon 250 m mot nordvest. Det er foreslått å legge til tre 500 m stasjoner mot sørvest, sørøst og nordvest.

Tabell 3-60 Foreslått program på Vilje i 2021. Alle koordinater i Ed50 UTM31. Rød font: stasjon flyttet >50 m i 2018.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			459340	6613500						
VIL1-18	330	250	459214	6613717	122	5	1	3	3	3
VIL2	150	500	459590	6613067				3	3	3
VIL4	60	250	459557	6613625	124	5	1	3	3	
VIL5	60	500	459773	6613750				3	3	
VIL8	330	250	459215	6613717	123	5	1	3	3	
VIL9	330	500	459090	6613933	123			3	3	
VIL11	240	250	459123	6613375	123	5	1	3	3	
VIL12	240	500	458907	6613250				3	3	
Sum						**20**	**4**	**24**	**24**	**6**



Figur 3-53 Stasjoner Vilje 2021.

3.25 Ivar Aasen

Operatør på Ivar Aasen er AkerBP og feltet er lokalisert ca. 32 km sørvest for Grane, og ca. 175 km vest for Karmøy. Boringene startet i 2015 og planlagt produksjonsperiode er fram til 2028. Ivar Aasen var planlagt som en samordnet utbygging med Edvard Grieg-feltet som ligger 10 km lenger sørøst. Olje og gass eksporteres via to rørledninger til Grieg-plattformen for behandling før videre eksport til salgssted.

Det ble gjennomført en grunnlagsundersøkelse i 2012, mens feltet ikke var inkludert i overvåkingen i 2015. Undersøkelsen i 2018 var dermed førstegangs overvåking og undersøkelsen i 2021 blir en regulær overvåkingsundersøkelse.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Ivar Aasen er vist i tabellen under.

Tabell 3-61 Utslippsdata og boreaktivitet for Ivar Aasen i perioden 2018-2020.

Ivar Aasen	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	2	2	2
Utslipp (tonn)			
Baritt	338	139	188
Borekaks	827	568	618
Vannbasert borevæske	184	125	74
Sementeringskjemikalier	6	13,5	34,8
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0,01	0,01	0,03
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0,8
Andre oljeutslipp/ lekkasjer			

Oversikt over nye brønner som er boret i løpet av de siste 3 årene på Ivar Aasen.

Brønn	Boret	Type	Øst	Nord
D-6	2018	Vanninjektor	453822.52	6531826.70
D-7	2018	Vanninjektor	453824.61	6531827.91
D-15	2019	Oljeprodusent	453827.12	6531823.55
D-18A	2019	Oljeprodusent	453822.44	6531820.21
D-17	2020	Oljeprodusent	453823.87	6531818.95
D-20	2020	Oljeprodusent	453830.47	6531822.59

Posisjonsendringer

D-32, D-34 og D-28 ble flyttet mindre enn 50 m.

Tabell 3-62 Stasjoner som ble flyttet på Ivar Aasen i 2018.

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
D-32	454063	6531747	108	250	D-32	454096	6531751	105	280
D-34	453957	6531612	108	2 000	D-34	455727	6531206	108	2 000

Opprinnelig posisjon					Ny posisjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)	Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N				E	N		
D-28	453868	6531578	170	250	D-28	453898	6531575	164	260

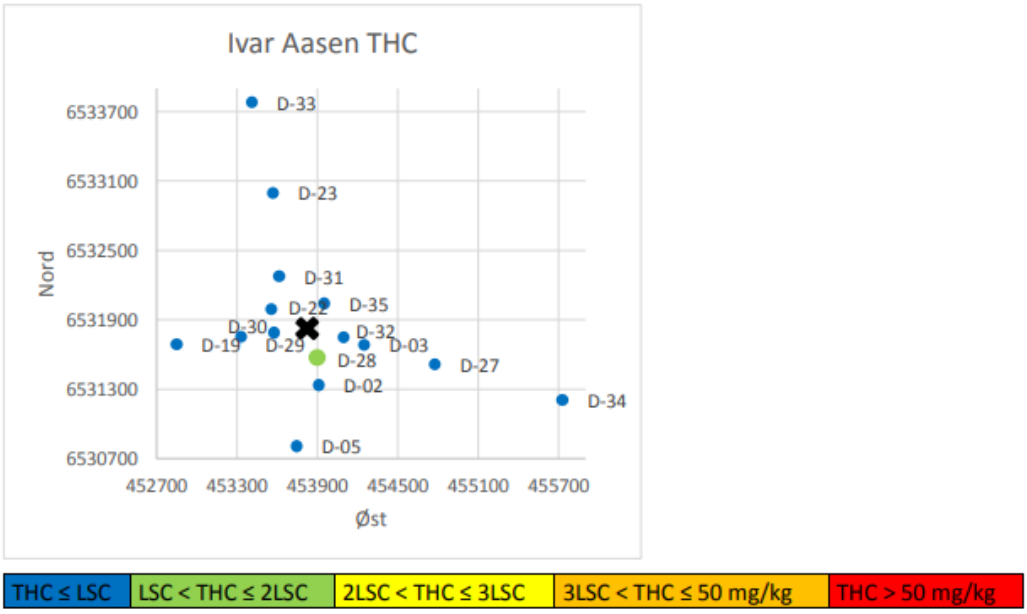
Resultater og konklusjoner fra undersøkelsen i 2018

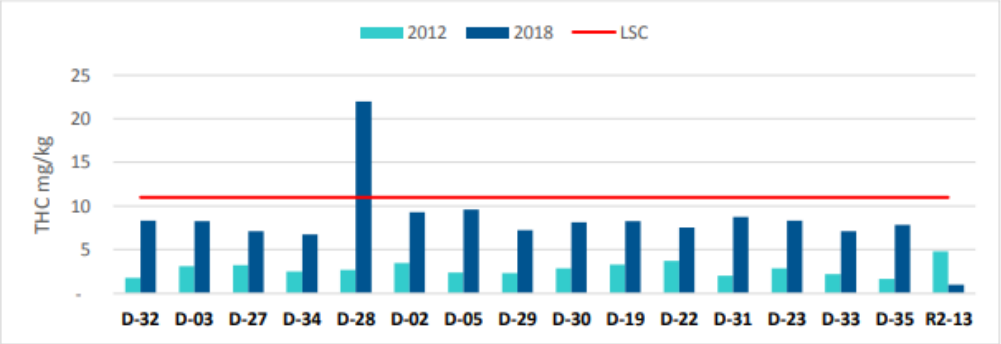
I 2018 ble sedimentet fra stasjonene tilknyttet Ivar Aasen definert som «svært fin sand». Andelen pelitt har sunket på de fleste stasjonene siden undersøkelsen i 2012. Andel totalt organisk karbon (TOC) lå mellom 0,25 og 0,37 %.

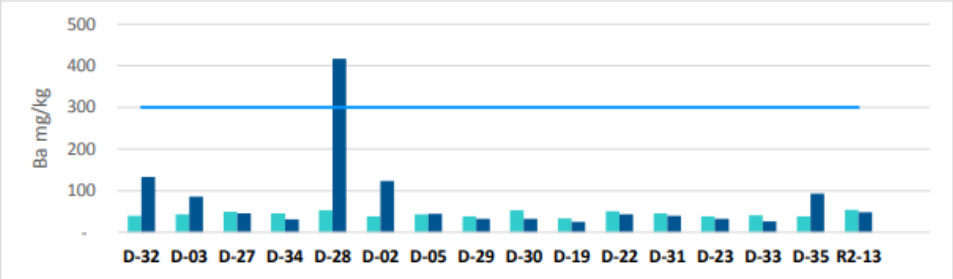
Til tross for boring av flere brønner, var konsentrasjonen av THC i sedimentet generelt sett lav og under LSC, men høyere enn den tilhørende regionalstasjonen. Høyeste konsentrasjon (22 mg/kg) ble funnet på stasjonen D-28, 250 m sør for feltsenteret og var eneste stasjon med konsentrasjon over LSC. Konsentrasjonen av PAH og NPD var lavere på de to undersøkte stasjonene sammenlignet med tilhørende regional stasjon, og under LSC.

Generelt sett er konsentrasjonene av de ulike metallene i sedimentet på de feltspesifikke stasjonene lave og på samme nivå som tilhørende regional stasjon. Kun Ba (D-28) og As (D-03, D-27 og D-05) hadde konsentrasjoner litt over LSC. Konsentrasjonen av de ulike metallene i sedimentet er stort sett på samme nivå som i 2012 foruten en generell økning i Cd og en reduksjon i konsentrasjonen av Hg på samtlige stasjoner. Stasjon D-28 skilte seg noe ut med en betydelig økning i konsentrasjonen av Ba siden forrige undersøkelse.

Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Ivar Aasen.







Figur 3-54 THC og Ba i sedimentet på Ivar Aasen. For Ba er 2*LSC markert med blå strek.

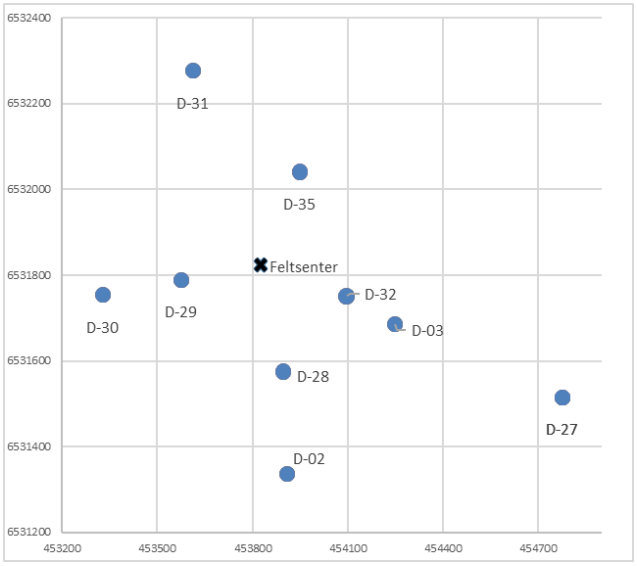
Program 2021

I 2018 var THC-konsentrasjonene lavere enn LSC på alle stasjoner med unntak av en stasjon. Stasjonen som ligger 260 m mot sørøst som er antatt hovedstrømretning, hadde THC på 22 mg/kg. Barium lå også over 2xLSC på denne stasjonen. Det er foreslått å ta ut 6 stasjoner og å beholde stasjonene som ligger nærmest feltsenteret og fortrinnsvis de stasjonene som ligger i sørlig/østlig retning fra feltsenteret.

Tabell 3-63 Foreslått prøvetakingsprogram Ivar Aasen 2021. Koordinater i ED50 UTM31. Blå font: Stasjonen flyttet <50 m i 2018. Rød: Stasjonen utgår i 2021.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
D-32	105	280	453825	6531824		5	1	3	3	
D-03	108	445	454096	6531751	113			3	3	3
D-27	108	1 000	454248	6531685	113			3	3	3
D-34	108	2 000	454776	6531515	113					
D-28	170	250	455727	6531206	113	5	1	3	3	
D-02	170	495	453898	6531575	113			3	3	
D-05	185	1 019	453909	6531336	113					
D-29	262	250	453744	6530808	111	5	1	3	3	
D-30	262	500	453577	6531789	111			3	3	
D-19	262	985	453330	6531754	112					
D-22	302	319	452849	6531689	112					
D-31	335	500	453554	6531993	112			3	3	
D-23	348	1 200	453614	6532277	114					

D-33	348	2 000	453569	6532996	155					
D-35	30	250	453409	6533780	114	5	1	3	3	
Sum						**20**	**4**	**27**	**27**	**6**



Figur 3-55 Stasjoner Ivar Aasen 2021.

3.26 Jette

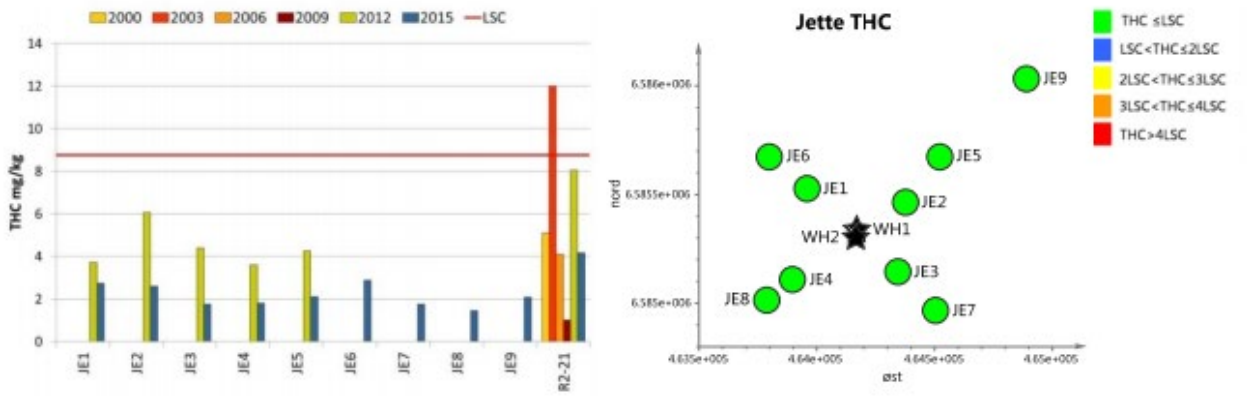
Utslipp på Jette er vist i tabellen under. Jette ble stengt i slutten av 2016 og det skal gjennomføres en undersøkelse i forbindelse med nedstenging.

Tabell 3-64 Utslippsdata på Jette, avhending i 2019.

Jette	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret		0	
Utslipp (tonn)			
Baritt		22,8	
Borekaks		0	
Vannbasert borevæske		119,4	
Sementeringskjemikalier		0	
Kompletteringskjemikalier		0	
Olje i produsert vann/forurenset vann		0,01	
Uhellsutslipp (m^3)			
Vannbasert borevæske		0	
Oljebasert borevæske		0	

Resultater og konklusjoner fra undersøkelsen i 2015

Jette ble sist undersøkt i 2015, 9 stasjoner (første gangs overvåking etter grunnlag). Utviklingen av THC over tid og THC nivåene på overvåkingsstasjonene i 2015 er vist i figuren under. THC var under LSC og faunaen var uforstyrret Jette i 2015. Det foreslås derfor å redusere programmet ved å utelate

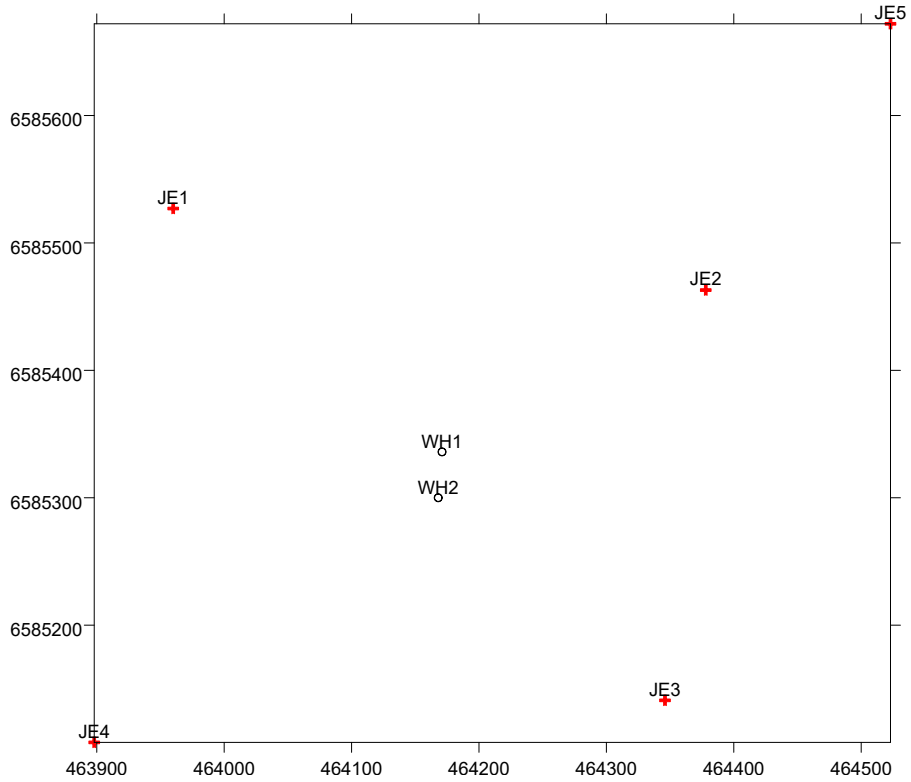


Figur 3-56 THC konsentrasjoner på Jette over tid (venstre) og THC i sediment i 2018 (høyre) over tid

Program 2021

Tabell 3-65 Foreslått prøvetakingsprogram Jette 2021. Koordinater i ED50 UTM31. Blå font: Rød: Stasjonen utgår i 2021.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
WH1			464171	6585336						
WH2			464168	6585300						
JE1	312	285	463960	6585527	127	5	1	3	3	
JE2	48	237	464378	6585463	128	5	1	3	3	3
JE3	138	262	464346	6585141	128	5	1	3	3	
JE4	230	355	463898	6585108	128	5	1	3	3	
JE5	46	487	464523	6585672	128	5	1	3	3	
JE6	312	500	463799	6585670	129					
JE7	46	1000	464890	6586030	129					
JE8	138	500	464506	6584964	127					
JE9	230	500	463788	6585014	128					
Sum						**25**	**5**	**15**	**15**	**3**



Figur 3-57 Stasjoner Jette 2021.

3.27 NOAKA (Aker BP)

Operatør er Aker BP. Langfjell PL442 tilhører den nordlige subregionen i Region 2. Undersøkelsen av Langfjell i 2018 var en grunnlagsundersøkelse. Med grunnlag i at Langfjellet var en letebrønn, ønsker ikke operatør at den følges opp i 2021.

Imidlertid skal følges opp i forbindelse med NOAKA prosjektet som Akre BP har sammen med Equinor (Se Krafla). Skisse over feltutbyggingen er vist i figuren under hvor Equnior er ansvarlig for Krafla mens Aker BP har Rund, Frøy Langefjell og NOAPdq som vist i figuren under.

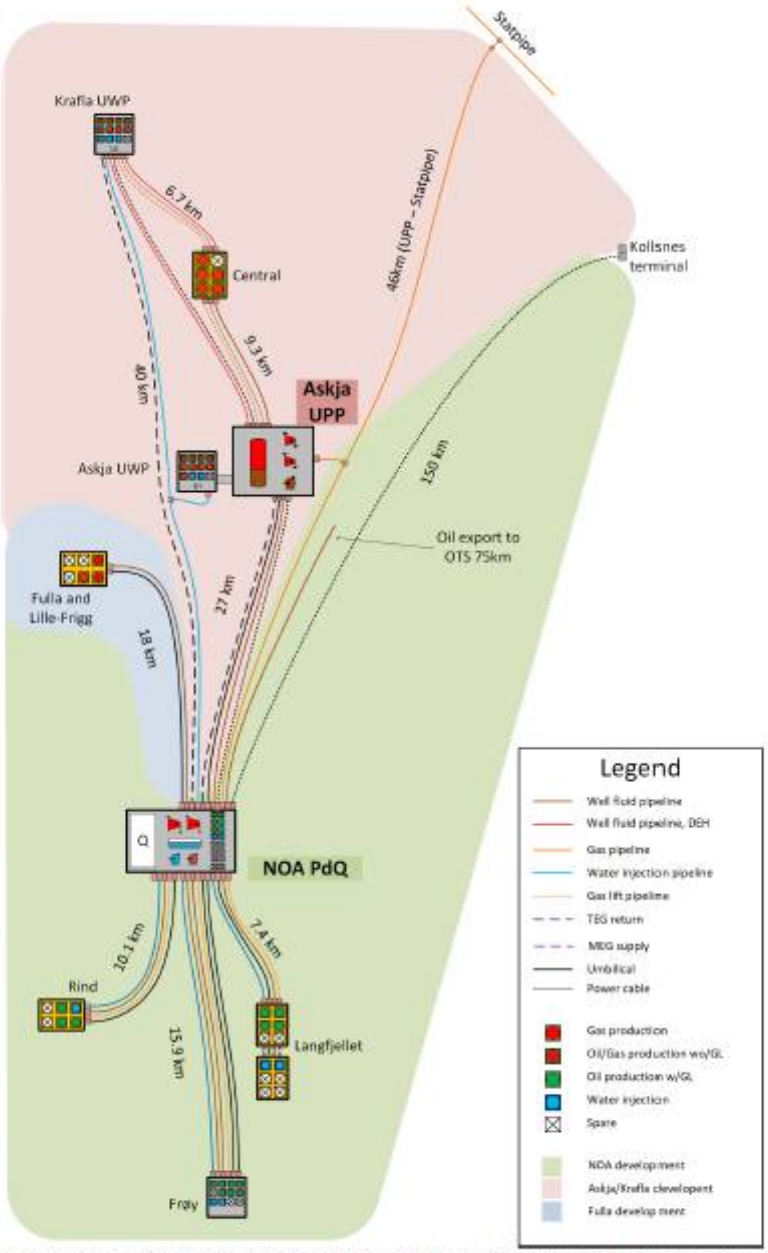


Fig. 2.2 Field layout Fulla including the NOA and Askja/Krafla developments. For illustration only, not to be used for design.

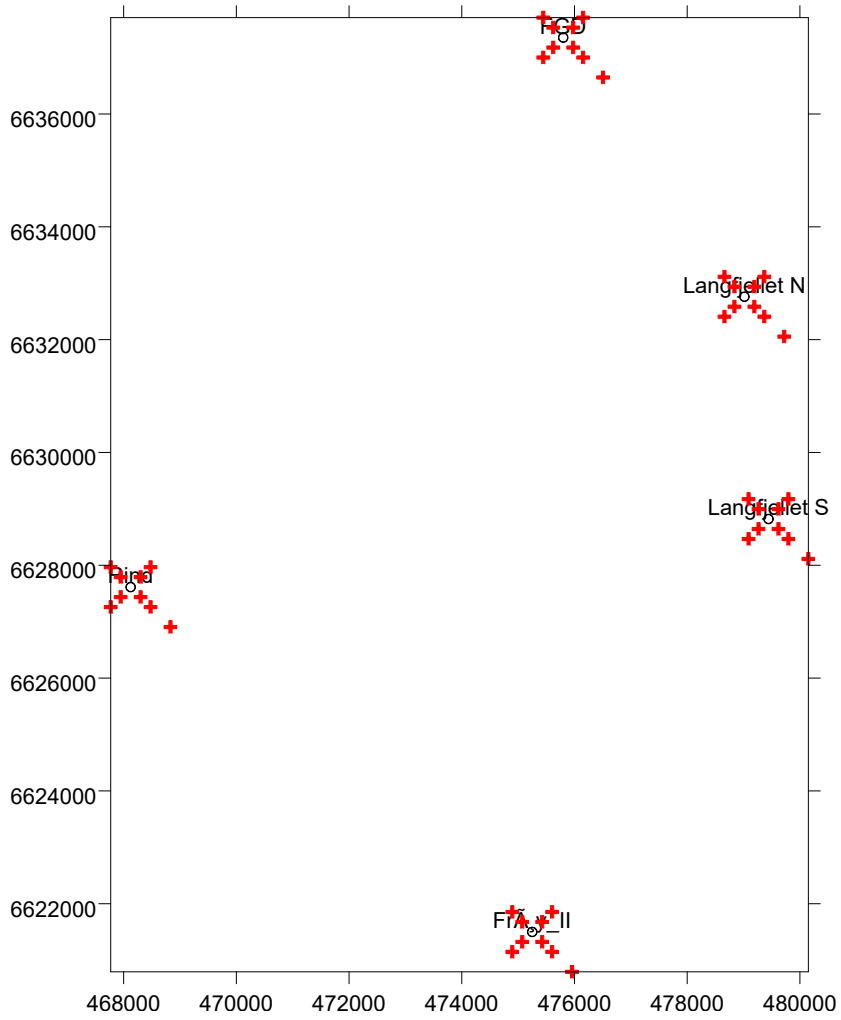
Program 2021

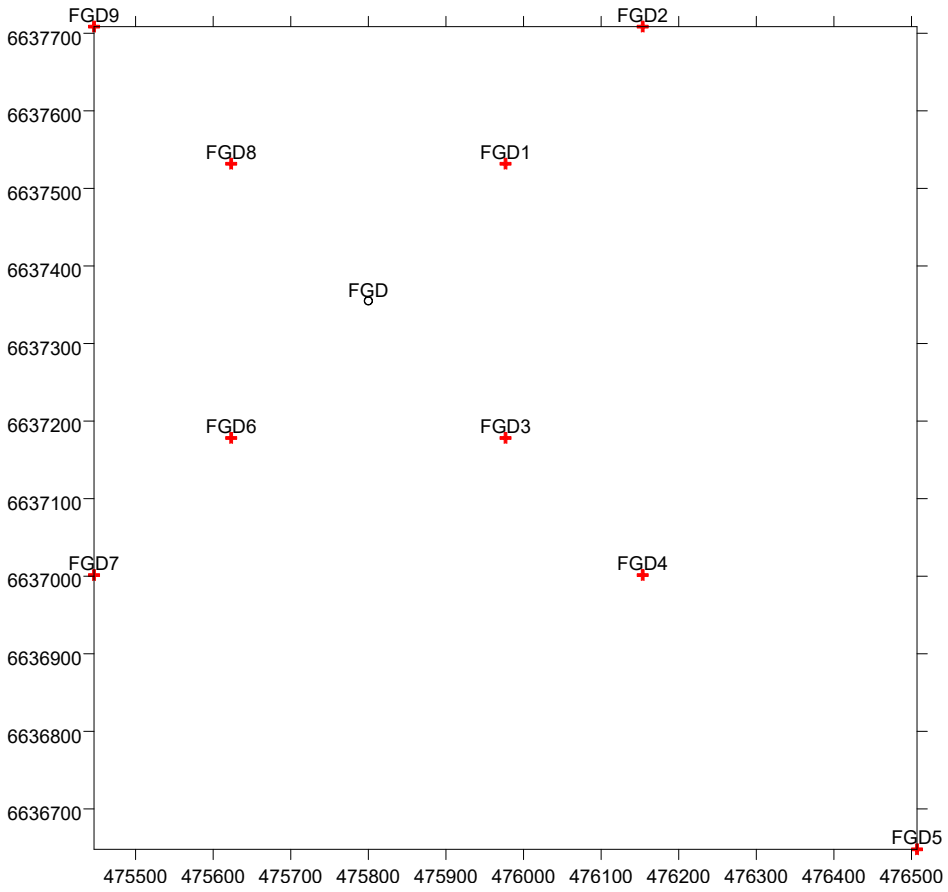
Programmet for grunnlagsundersøkelsene i 2021 er vist i tabellen og figuren under.

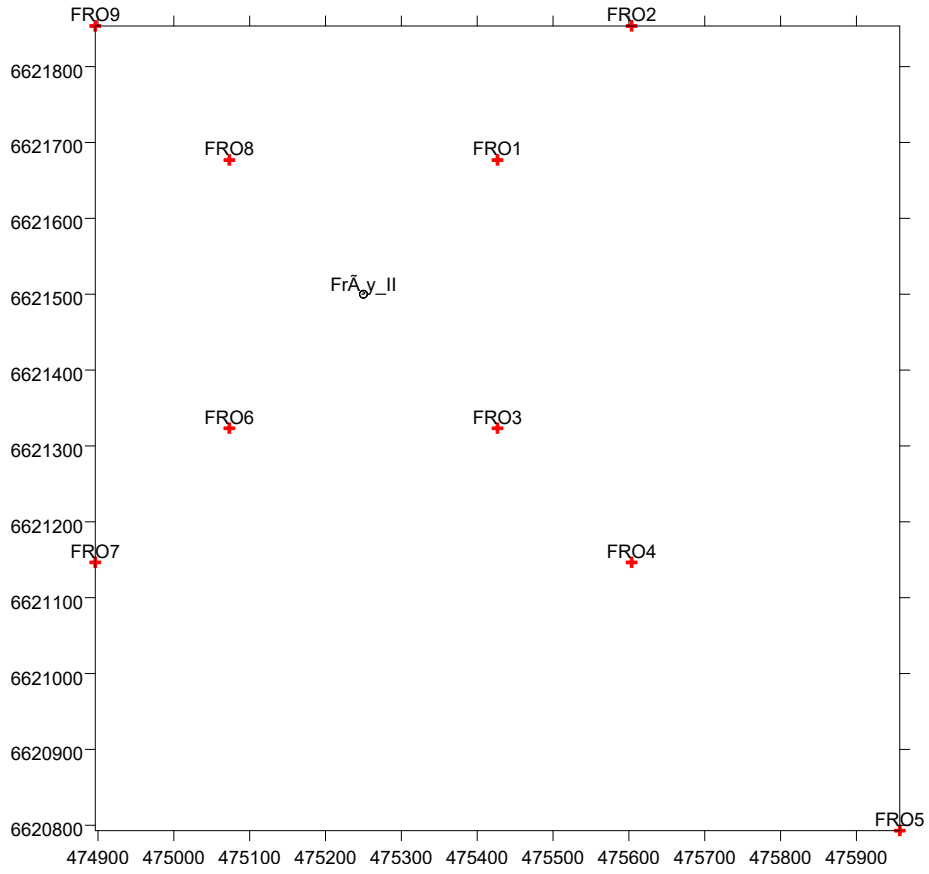
Tabell 3-66 Foreslått prøvetakingsprogram NOAKA prosjektet til Aker BP 2021. Koordinater i ED50 UTM31.

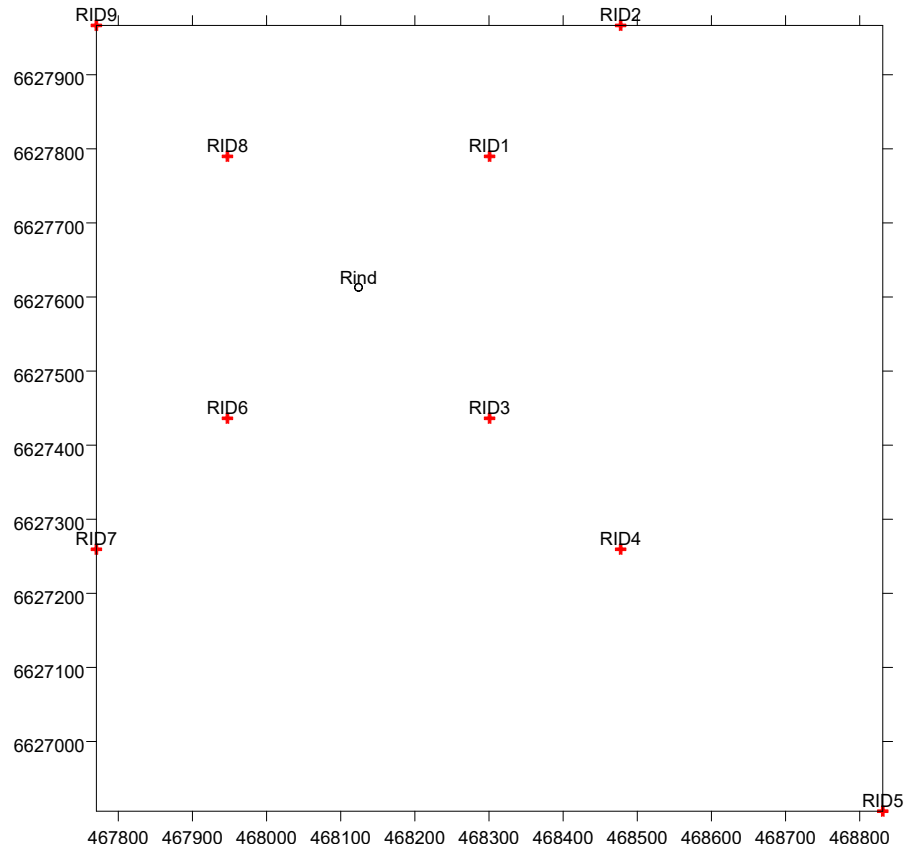
Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
FGD			**475800**	**6637355**						
FGD1	45	250	475977	6637532		5	1	3	3	3
FGD2	45	500	476154	6637709		5	1	3	3	3
FGD3	135	250	475977	6637178		5	1	3	3	3
FGD4	135	500	476154	6637001		5	1	3	3	3
FGD5	135	1000	476507	6636648		5	1	3	3	3
FGD6	225	250	475623	6637178		5	1	3	3	3
FGD7	225	500	475446	6637001		5	1	3	3	3
FGD8	315	250	475623	6637532		5	1	3	3	3
FGD9	315	500	475446	6637709		5	1	3	3	3
Langfjellet N			**479015**	**6632761**						
LFN1	45	250	479192	6632938		5	1	3	3	3
LFN2	45	500	479369	6633115		5	1	3	3	3
LFN3	135	250	479192	6632584		5	1	3	3	3
LFN4	135	500	479369	6632407		5	1	3	3	3
LFN5	135	1000	479722	6632054		5	1	3	3	3
LFN6	225	250	478838	6632584		5	1	3	3	3
LFN7	225	500	478661	6632407		5	1	3	3	3
LFN8	315	250	478838	6632938		5	1	3	3	3
LFN9	315	500	478661	6633115		5	1	3	3	3
Langfjellet S			**479443**	**6628820**						
LFS1	45	250	479620	6628997		5	1	3	3	3
LFS2	45	500	479797	6629174		5	1	3	3	3
LFS3	135	250	479620	6628643		5	1	3	3	3
LFS4	135	500	479797	6628466		5	1	3	3	3
LFS5	135	1000	480150	6628113		5	1	3	3	3
LFS6	225	250	479266	6628643		5	1	3	3	3
LFS7	225	500	479089	6628466		5	1	3	3	3
LFS8	315	250	479266	6628997		5	1	3	3	3
LFS9	315	500	479089	6629174		5	1	3	3	3
Frøy_II			**475250**	**6621500**						
FRO1	45	250	475427	6621677		5	1	3	3	3
FRO2	45	500	475604	6621854		5	1	3	3	3
FRO3	135	250	475427	6621323		5	1	3	3	3
FRO4	135	500	475604	6621146		5	1	3	3	3
FRO5	135	1000	475957	6620793		5	1	3	3	3
FRO6	225	250	475073	6621323		5	1	3	3	3
FRO7	225	500	474896	6621146		5	1	3	3	3
FRO8	315	250	475073	6621677		5	1	3	3	3
FRO9	315	500	474896	6621854		5	1	3	3	3
Rind			**468124**	**6627613**						

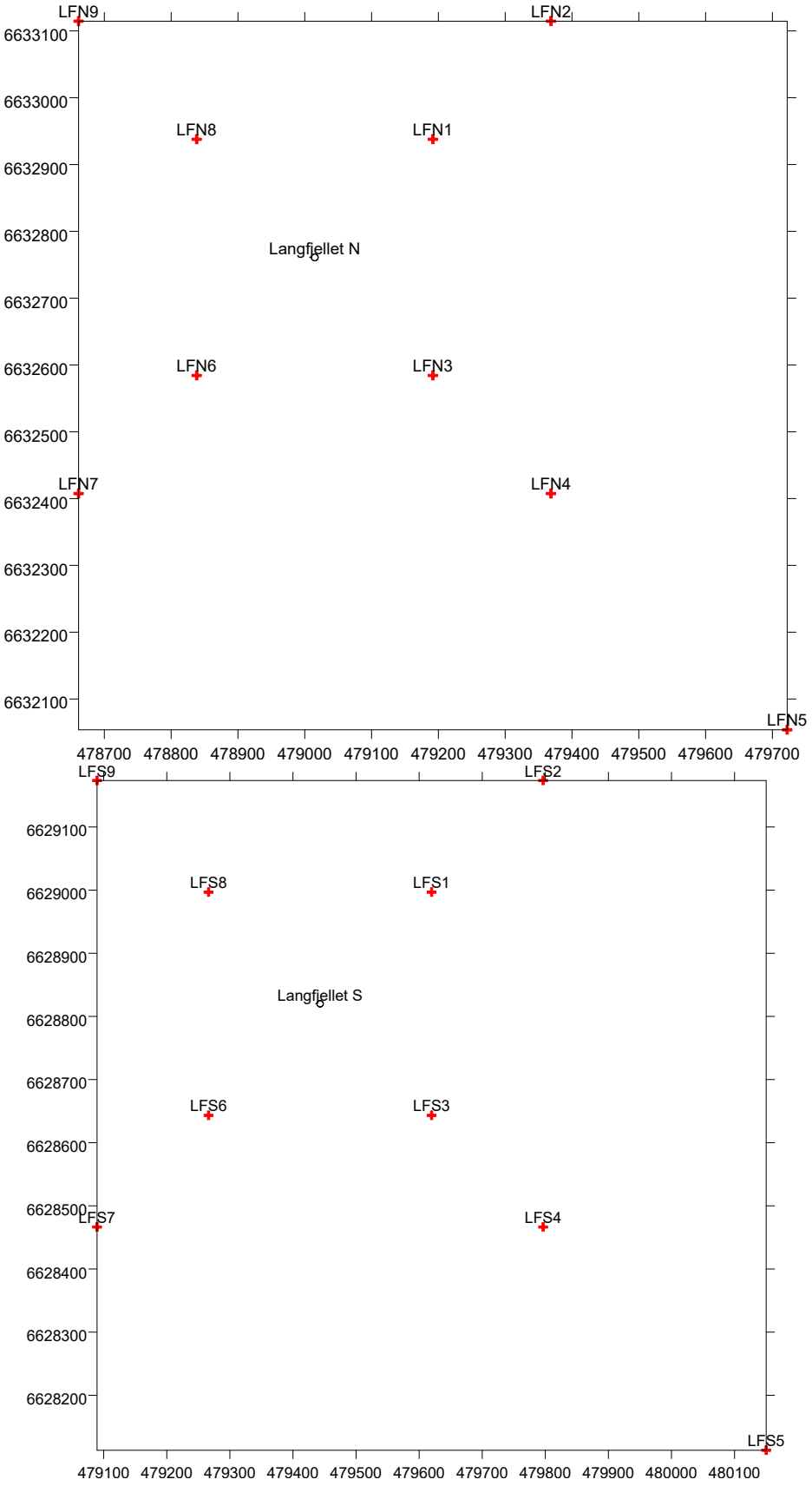
RID1	45	250	468301	6627790	5	1	3	3	3
RID2	45	500	468478	6627967	5	1	3	3	3
RID3	135	250	468301	6627436	5	1	3	3	3
RID4	135	500	468478	6627259	5	1	3	3	3
RID5	135	1000	468831	6626906	5	1	3	3	3
RID6	225	250	467947	6627436	5	1	3	3	3
RID7	225	500	467770	6627259	5	1	3	3	3
RID8	315	250	467947	6627790	5	1	3	3	3
RID9	315	500	467770	6627967	5	1	3	3	3
Sum					**45**	**45**	**135**	**135**	**135**




FGD9
FGD2
FGD8
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6637100
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6621000
6620900
6620800
474900
475000
475100
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475500
475600
475700
475800
475900


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6627400
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468600
468700
468800



Figur 3-58 Stasjoner NOAKA (Aker BP) 2021.

3.28 Edvard Grieg

Operatør er Lundin. Edvard Grieg (16/1-8), tidligere Luno, ligger omtrent 35 km sør for Grane og Balder.

Feltet er bygget ut med en bunnfast plattform (jacket stålunderstell) med fullprosessanlegg, tørre brønnhoder med ekstern jack-up drilling og boligkvarter. Produksjonen startet den 28. november 2015.

Edvard Grieg-plattformen er designet som et feltsenter og vil motta og prosessere hydrokarbonstrømmer fra andre funn i området. Det er lagt en egen oljerørledning fra Edvard Grieg-plattformen til det eksisterende Grane-oljerøret for eksport til oljeterminalen Sture. Tilsvarende er det lagt et eget gassrør til transportsystemet SAGE på britisk sokkel for eksport av rikgass til St. Fergus i Skottland.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Edvard Grieg er vist i tabellen under.

Tabell 3-67 Utslippsdata og boreaktivitet for Edvard Grieg i perioden 2018-2021.

Edvard Grieg	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	2	-	-
Utslipp (tonn)			
Baritt	517	-	-
Borekaks	2816	-	-
Vannbasert borevæske	8655	-	-
Sementeringskjemikalier	81	-	-
Kompletteringskjemikalier	2786	-	-
Olje i produsert vann/forurenset vann	0,072	0,081	0,093
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0,01	0	0

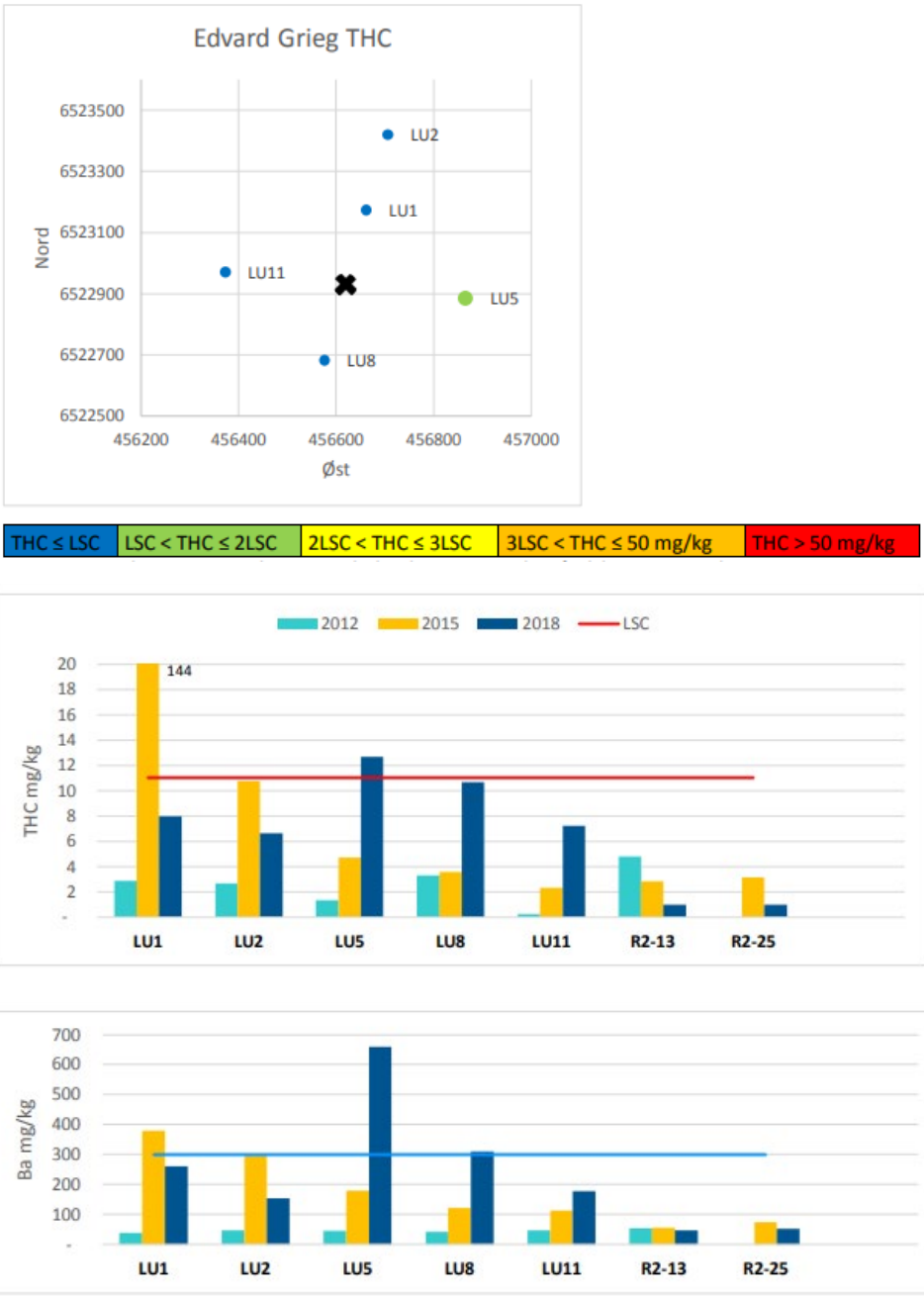
Resultater og konklusjoner fra undersøkelsen i 2021

Konsentrasjonene av THC var lave og under LSC for samtlige stasjonene med unntak av stasjonen 250 meter sørøst for feltsenteret (LU5) hvor konsentrasjonen lå litt over LSC. På stasjonene nord for feltsenteret ble det observert en reduksjon i konsentrasjonen av THC siden forrige undersøkelse, mens det på de øvrige stasjonene ble observert en økning. Konsentrasjonen av PAH og NPD var høyere på de to undersøkte stasjonene sammenlignet med tilhørende regionale stasjoner, og høyere enn LSC for NPD.

Generelt sett var konsentrasjonene av de ulike metallene relativt like mellom de feltspesifikke og de tilhørende regionale stasjonene, med unntak av Ba som var tydelig høyere på de feltspesifikke stasjonene. Konsentrasjonen av Ba og As på stasjon LU5 (250 m mot øst) og LU8 (250 m mot sør) lå over LSC, samtlige av de øvrige analyserte prøvene var under LSC. Utover en tydelig økning i konsentrasjonen av Ba i sedimentet på stasjon LU5 og LU8, var det kun små endringer i konsentrasjonen av de ulike metallene i sedimentet sett i forhold til forrige undersøkelse.

En økning i antall arter på samtlige stasjoner og reduksjon i individtetthet på to av stasjonene har resultert i en høyere diversitet enn i både 2012 og 2015. De tilknyttete regionalstasjonene synes å følge det samme

mønsteret som de feltspesifikke stasjonene. Det antas at dette skyldes naturlige svingninger, og resultatene fra bunndyrsanalysene indikerer en uforstyrret fauna på stasjonene ved Edvard Grieg.



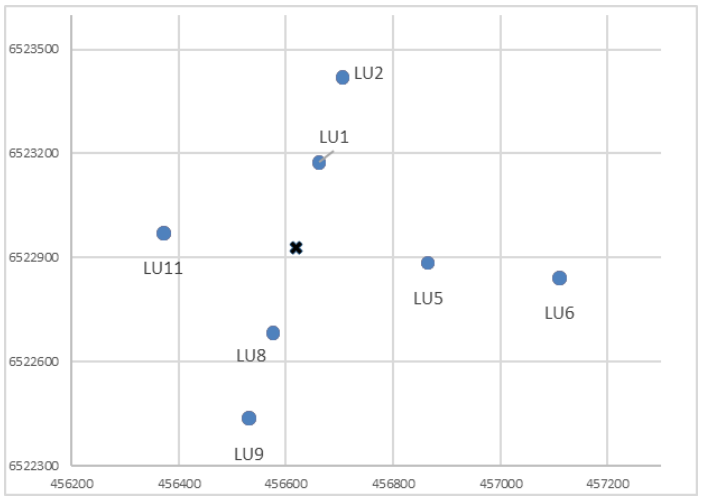
Figur 3-59 THC og Ba i sedimentet på Edvard Grieg. For Ba er 2*LSC markert med blå strek.

Program 2021

Høyeste konsentrasjoner av THC og barium (over LSC) ble funnet på LU5 og LU8 i 2018 (sørøstlig og sørvestlig retning), mens det var LU1 og LU2 som hadde de høyeste konsentrasjonene i 2015 (nordøstlig retning). Det er forslått å legge til ytterstasjoner i disse retningene.

Tabell 3-68 Foreslått prøvetakingsprogram Edvard Grieg i 2021. Koordinater i ED50 UTM31. Grønn: Stasjon tas inn i 2021.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			**456619**	**6522928**						
LU1	10	250	456662	6523174	109	5	1	3	3	3
LU2	10	500	456706	6523420	109			3	3	
LU5	100	250	456865	6522885	109	5	1	3	3	3
LU6	100	500	457111	6522841				3	3	
LU8	190	250	456576	6522682	109	5	1	3	3	
LU9	1990	500	456532	6522436				3	3	
LU11	280	250	456373	6522971	109	5	1	3	3	
Sum						**20**	**4**	**21**	**21**	**6**



Figur 3-60 Stasjoner Edvard Grieg i 2021.

3.29 Breidablikk (tidligere Grand)

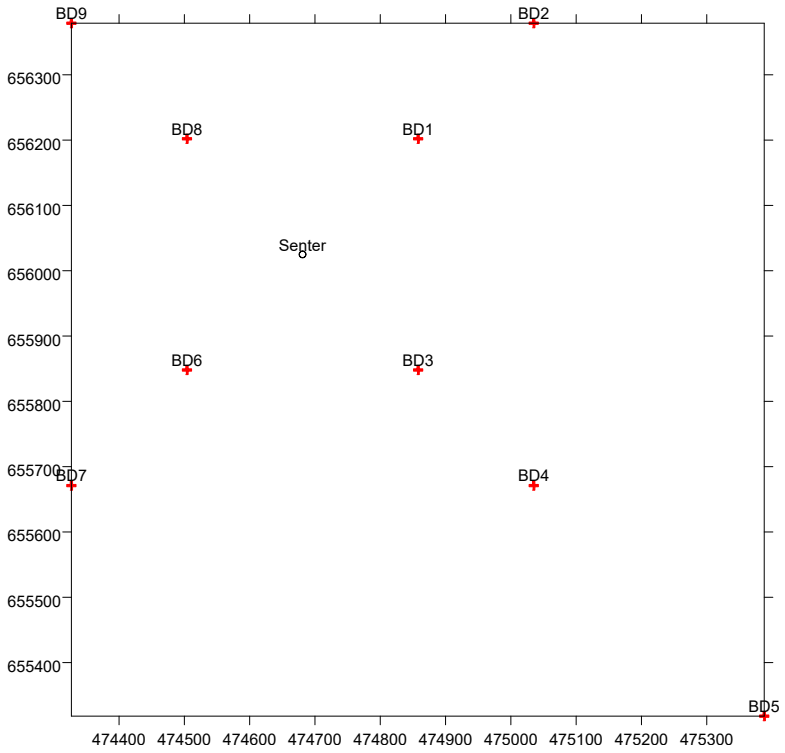
Operatør er Equinor. Undersøkelsen i 2018 var en grunnlagsundersøkelse. Breidablikk tilhører den sentrale subregionen i Region 2. Det ble i 2018 gjennomført undersøkelser ved 3 planlagte templater K, L og M.

Det har ikke vært utslipp på Breidablikk i perioden 2018-2021, så overvåking på de tre undersøkte lokalitetene utgår. Det skal imidlertid gjennomføres en grunnlagsundersøkelse på ramme J.

Tabell 3-69 Foreslått prøvetakingsprogram Breidablikk J 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			474681	656025						
BD1	45	250	474858	656202		5	1	3	3	3
BD2	45	500	475035	656379		5	1	3	3	3
BD3	135	250	474858	655848		5	1	3	3	3

BD4	135	500	475035	655671	5	1	3	3	3
BD5	135	1000	475388	655318	5	1	3	3	3
BD6	225	250	474504	655848	5	1	3	3	3
BD7	225	500	474327	655671	5	1	3	3	3
BD8	315	250	474504	656202	5	1	3	3	3
BD9	315	500	474327	656379	5	1	3	3	3
Sum					**45**	**9**	**27**	**27**	**27**



Figur 3-61 Stasjoner Breidablikk J, 2021.

3.30 Hanz

Operatør på Hanz er Aker BP. Hanz er tilknyttet Ivar Aasen (tidligere Draupne) og er lokalisert ca 12 km nord for Ivar Aasen feltet. Hanz ble oppdaget i 1997. Det er planlagt boret en brønn i 2023 på en lokalitet som ikke tidligere er undersøkt, og det er derfor lagt opp til en grunnlagsundersøkelse

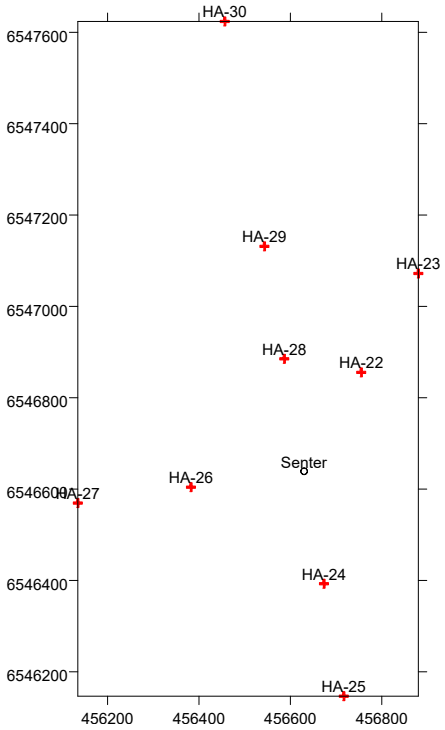
Program 2021

Det er foreslått en grunnlagsundersøkelse med 9 stasjoner, se tabell og figur under.

Tabell 3-70 Foreslått prøvetakingsprogram Hanz 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Senter			**456630**	**6546639**						
HA-22	30	250	456755	6546856		5	1	3	3	3
HA-23	30	500	456880	6547072		5	1	3	3	3

HA-24	**170**	**250**	456673	6546393	5	1	3	3	3
HA-25	**170**	**500**	456717	6546147	5	1	3	3	3
HA-26	262	250	456382	6546604	5	1	3	3	3
HA-27	262	500	456135	6546569	5	1	3	3	3
HA-28	350	250	456587	6546885	5	1	3	3	3
HA-29	350	500	456543	6547131	5	1	3	3	3
HA-30	350	1000	456456	6547624	5	1	3	3	3
Sum					**45**	**49**	**27**	**27**	**27**



Figur 3-62 Stasjoner Hanz 2021.

3.31 Gina Krog (tidligere Dagny)

Operatør er Equinor. Det ble gjennomført en grunnlagsundersøkelse i 2012. Før undersøkelsen i 2015 var det ikke igangsatt aktiviteter som medfører utslipp og feltet var derfor utelatt fra 2015-undersøkelsen. I 2018 var første gangs overvåkning. Gina Krogh er en brønnhodeinnretning som ligger i PL048 i Region II i Nordsjøen, omtrent 30 km nord for Sleipner A-innretningen. Oljen skal lastes på lagerskip. Våtgassen skal transporteres i rørledning til Sleipner A for videre prosessering.

Utslipp og boreaktivitet

Utslipp og boreaktivitet på Gina Krog er vist i tabellen under.

Tabell 3-71 Utslippsdata og boreaktivitet for Gina Krog i perioden 2018-2021.

Gina Krog	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	7	5	
Utslipp (tonn)			
Baritt	165.56	138.11	
Borekaks	2462.28	1709.24	
Vannbasert borevæske	843.05	3237.1	
Sementeringskjemikalier	1.72	13.279	
Kompletteringskjemikalier	0		
Olje i produsert vann/forurenset vann	0.31	0.35	0.22
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer			

Posisjonsendringer

I henhold til tidligere beskrivelser skulle DAG-04 ligge 2000 m mot nord. Koordinatene plasserer den isteden 250 m mot øst/sørøst og det var her prøvene ble tatt i 2018. De påfølgende stasjonene mot øst/sørøst har også hatt registrert feil avstand. DAG-05 var registrert med 250 m avstand fra senter, men ligger i realiteten på 500 m avstand, DAG-06 var oppført med 500 m avstand, men ligger på 1000 m avstand og mens det sto at DAG-07 skulle ligge 1000 m fra senter, er den i realiteten 2000 m unna. Koordinatene til DAG-04 i 2018 stemmer overens med de som var oppført i grunnlagsundersøkelsen, men stemte i 2018 ikke med MOD (MOD oppgir koordinater på 10/2000 m). For å sikre at de korrekte koordinatene benyttes videre, valgte vi å endre navnet til DAG-04-18

Tabell 3-72 Stasjon som ble flyttet på Gina Krog i 2018.

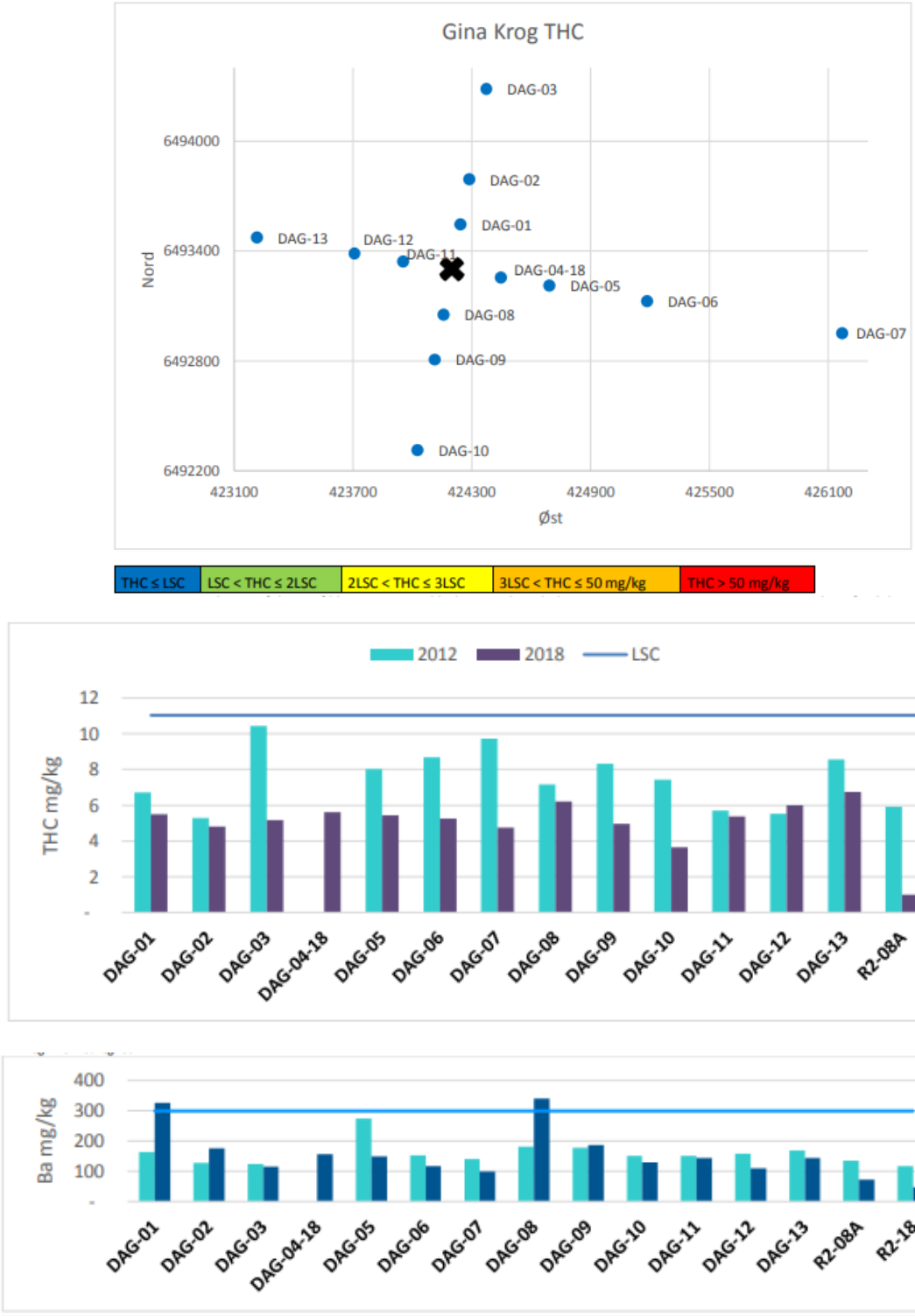
Ny stasjon				
Stasjon	ED50 UTM sone 31		Retning (°)	Avstand (m)
	E	N		
DAG-04-18	424446	6493257	100	250

Resultater og konklusjoner fra undersøkelsen i 2018

Konsentrasjonene av THC var under LSC for samtlige av de feltspesifikke stasjonene, og så vidt høyere enn tilhørende regionalstasjoner. Til tross for høy boreaktivitet har det vært en reduksjon i konsentrasjonen av THC ved samtlige undersøkte stasjoner med unntak av DAG-12, hvor det ble observert en liten økning. Konsentrasjonen av PAH og NPD var høyere på de to feltspesifikke stasjonene sammenlignet med tilhørende regional stasjon. På de to feltspesifikke stasjonene var NPD over LSC.

Generelt sett er konsentrasjonene av metaller høyere på de feltspesifikke stasjonene sammenlignet med tilhørende regionale stasjoner. Noen av stasjonene i alle retninger fra feltsenteret hadde konsentrasjoner litt over grenseverdiene. På stasjonene 250m mot nord og sør ble det observert en økning i konsentrasjonen av Ba i sedimentet. For de øvrige stasjonene ble det kun registrert små endringer siden grunnlagsundersøkelsen i 2012.

Diversitetsindeksene er høye på samtlige stasjoner, og har økt for samtlige stasjoner sammenlignet med undersøkelsen i 2012. Den tilknyttete regionalstasjonen R2-18 synes å følge det samme mønsteret som de feltspesifikke stasjonene. Basert på bunndyrsanalysene indikerer faunasammensetningen et sunt bunnhabitat på samtlige feltspesifikke stasjoner for Gina Krog.



Figur 3-63 THC og Ba i sedimentet på Gina Krog. For Ba er 2*LSC markert med blå strek.

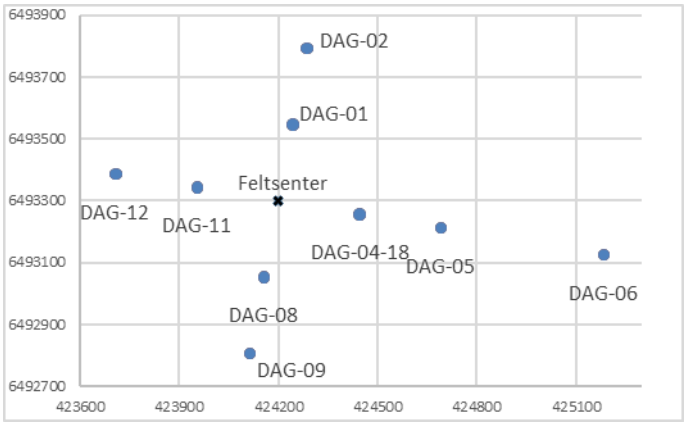
Program 2021

THC-konsentrasjonene lå under LSC for alle de undersøkte stasjonene. Noen metaller lå litt over LSC på enkelte stasjoner. Det er foreslått å fjerne de ytterste stasjonene i alle retninger.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår biologiprøver fra programmet.

Tabell 3-73 Foreslått prøvetakingsprogram Gina Krog i 2021. Koordinater i ED50 UTM31. Rød: Stasjon utgår i 2021. Rød font: Stasjon flyttet >50 m i 2018.

Gina Krog	Retning	Avstand	Øst	Nord	Dyp	BIO	Korn/TOC	THC	Met.	NPD/PAH
Senter			424200	6493300						
DAG-01	10	250	424243	6493546	116			3	3	
DAG-02	10	500	424287	6493792	117			3	3	
DAG-03	10	1000	424374	6494285	117					
DAG-04-18	100	250	424446	6493257	116			3	3	3
DAG-05	100	500	424692	6493213	115			3	3	3
DAG-06	100	1000	425185	6493126	110			3	3	
DAG-07	100	2240	426170	6492953	112					
DAG-08	190	250	424157	6493054	116			3	3	
DAG-09	190	500	424113	6492808	116			3	3	
DAG-10	190	1000	424026	6492315	116					
DAG-11	280	250	423954	6493343	113			3	3	
DAG-12	280	500	423708	6493387	117			3	3	
DAG-13	280	1000	423215	6493474	117					
Sum								**27**	**27**	**6**



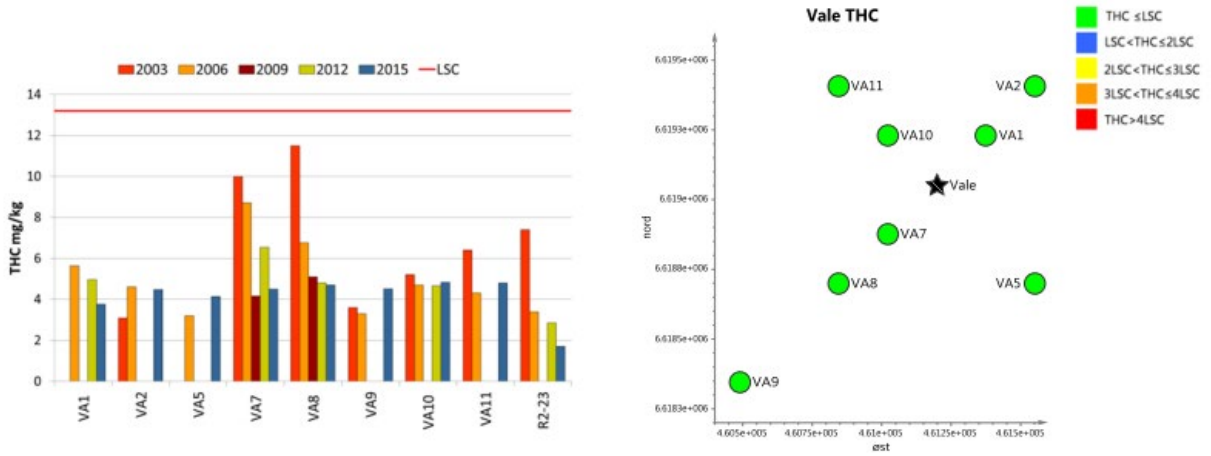
Figur 3-64 Stasjoner Gina Krog 2021.

3.32 Vale

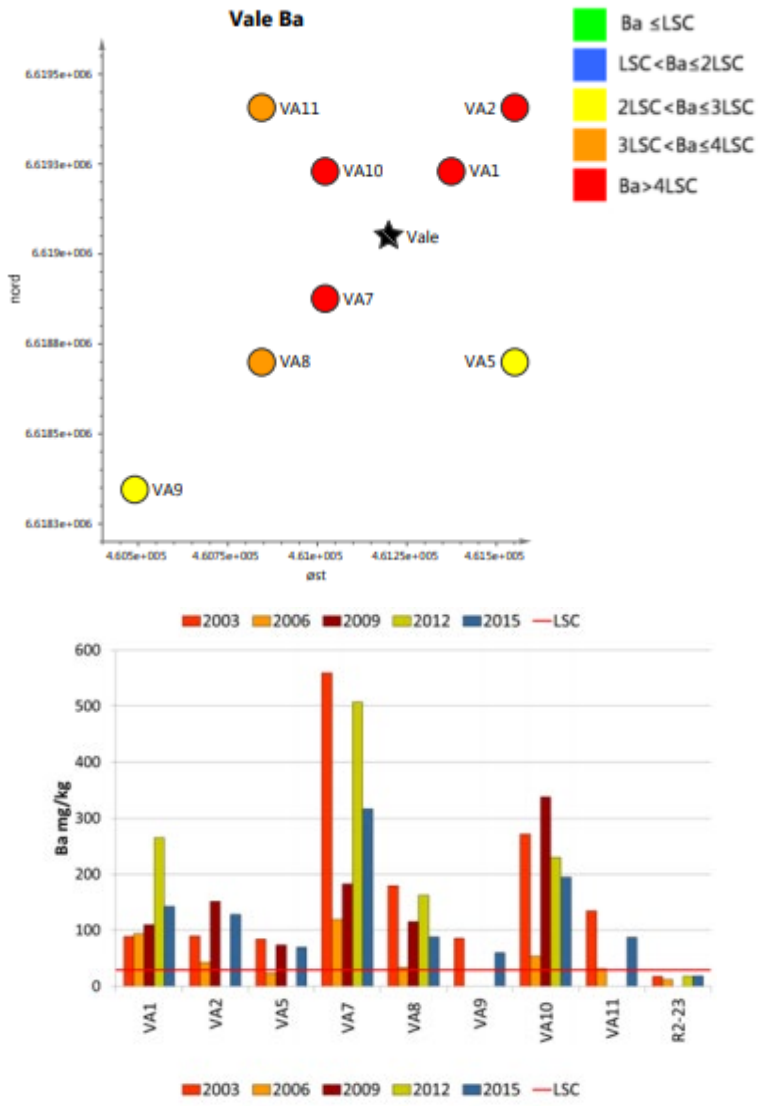
Spirt Energy er operatør på Vale. Det har ikke vært utslipp på Vale siden forrige undersøkelse. Feltet ble ikke undersøkt i 2018 og er stengt ned i 2024, så operatør ønsker en undersøkelse i 2021 på mal etter forrige program.

Resultater og konklusjoner fra undersøkelsen i 2015

Det var ikke forhøyede konsentrasjoner av THC på Vale i 2015 og metallkonsentrasjonene var generelt uendret sammenliknet med undersøkelsen i 2012.



Figur 3-65 THC i sedimentet på Vale over tid (venstre) og på de undersøkte stasjonene i 2018 (høyre).



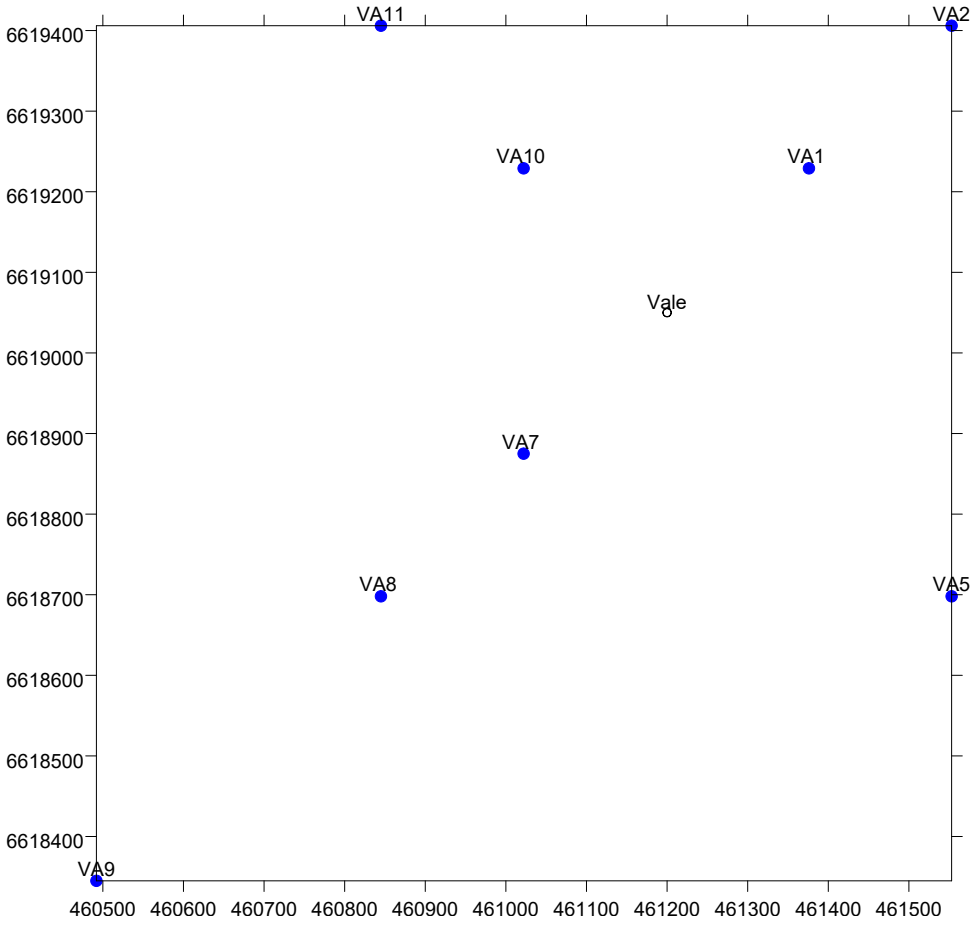
Figur 3-66 Konsentrasjoner av Ba i sediment på Vale i 2018 (øverst) og over tid.

Program 2021

Samme program som i 2015 er foreslått.

Tabell 3-74 Foreslått prøvetakingsprogram Vale i 2021. Koordinater i ED50 UTM31.

Vale	Retning	Avstand	Øst	Nord	Dyp	BIO	Korn/TOC	THC	Met.	NPD/PAH
Vale			461200	6619050						
VA1	45	250	461376	6619229				3	3	3
VA2	45	500	461553	6619406				3	3	
VA5	135	500	461553	6618698				3	3	
VA7	225	250	461022	6618875				3	3	3
VA8	225	500	460845	6618698				3	3	
VA9	225	1000	460492	6618345				3	3	
VA10	315	250	461022	6619229				3	3	
VA11	315	500	460845	6619406				3	3	
SUM								**24**	**24**	**6**



Figur 3-67 Stasjoner Vale 2021.

3.33 Krafla (NOAKA)

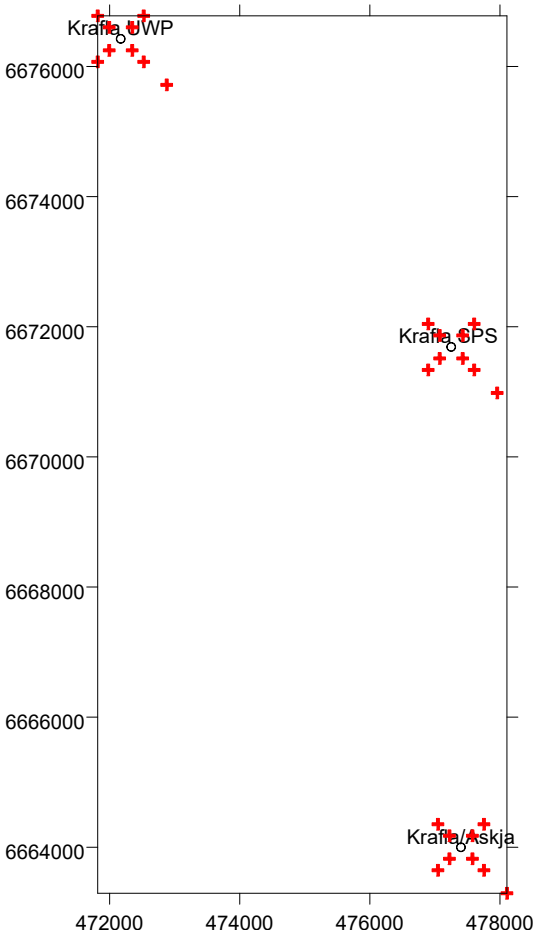
Det skal gjennomføres en grunnalgsundersøkelse på Krafla som en del av NOAKA prosjektet Equinor har sammen med Aker BP. For felt

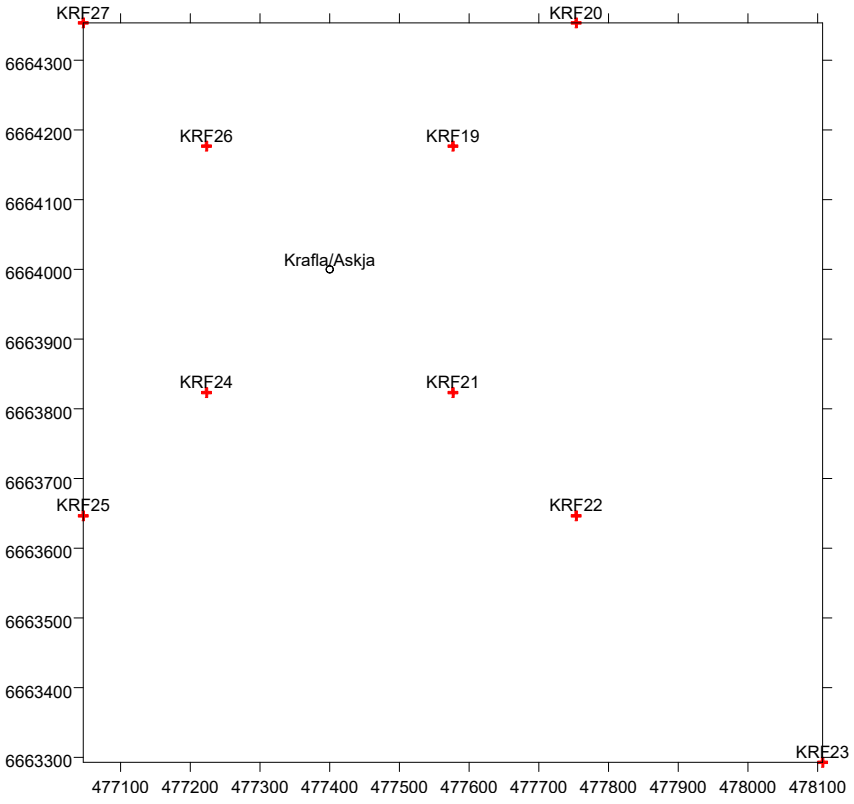
Program 2021

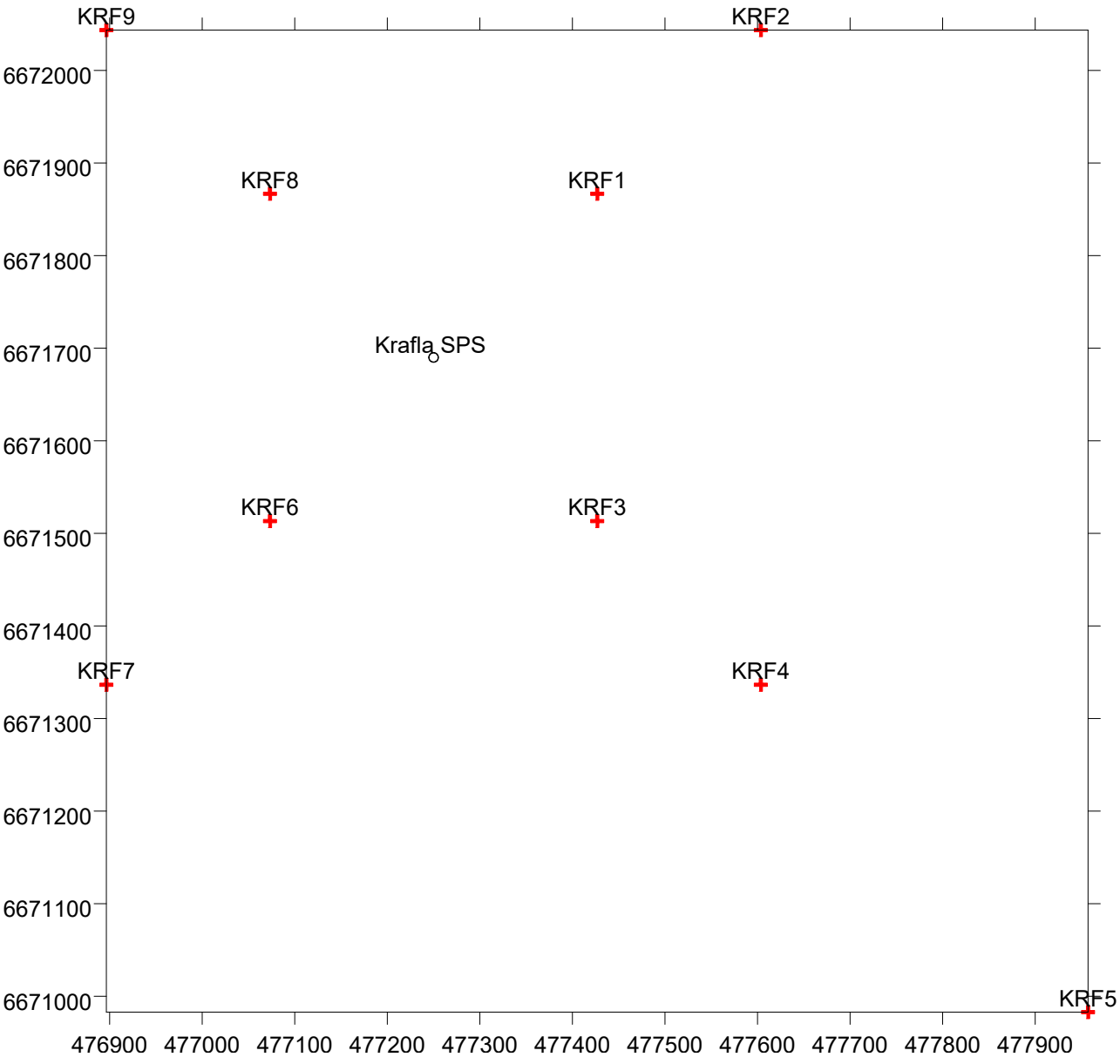
Equinor vil undersøke rund 3 bunnrammer på Krafla, se figur i Kapittel 3.27 for oversikt over feltet.

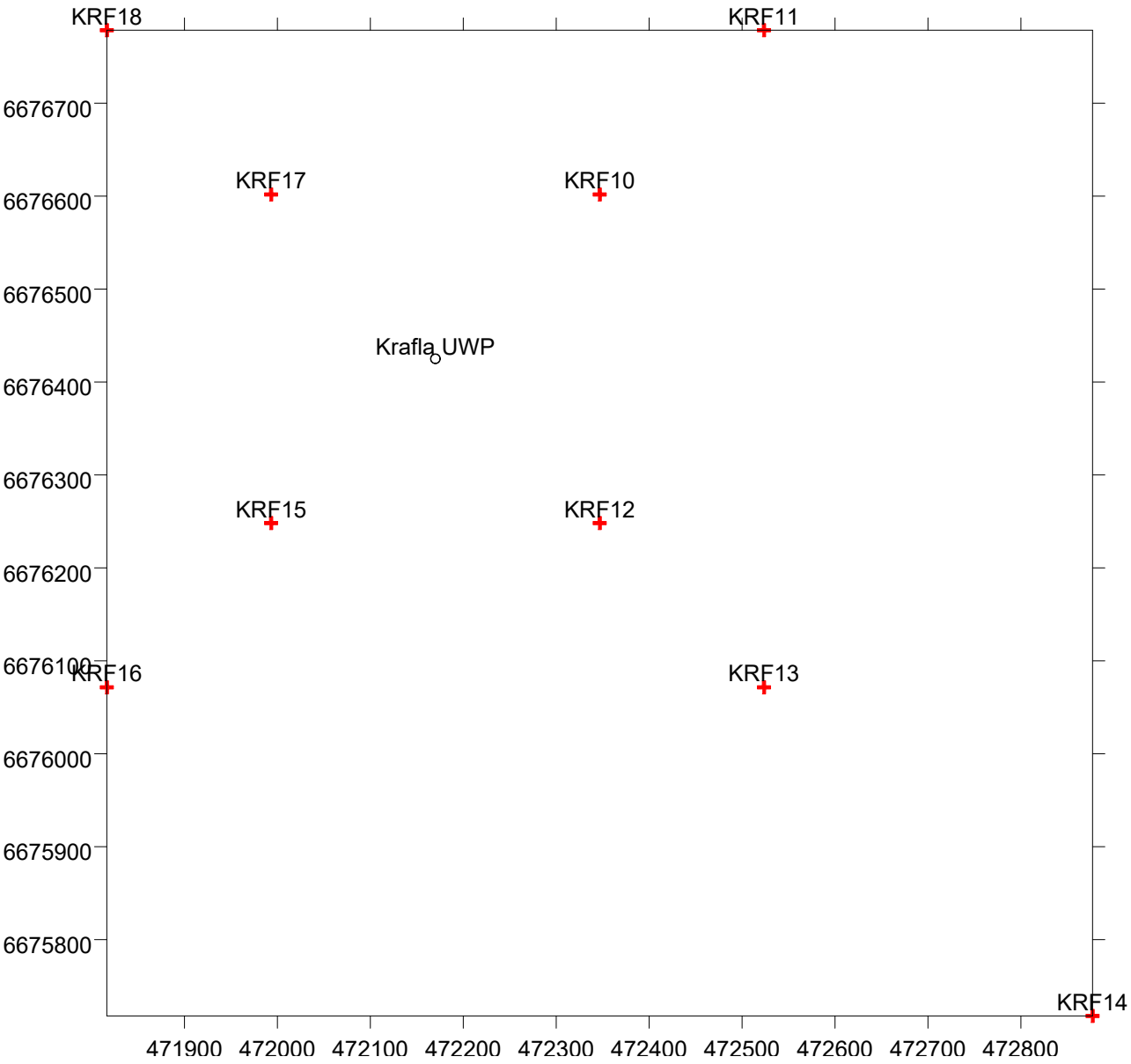
Tabell 3-75 Foreslått prøvetakingsprogram Krafla (NOAKA prosjektet til Equinor) 2021. Koordinater i ED50 UTM31.

Stasjon	Retn.	Avst.	Øst	Nord	Dyp	Bio	Korn/ TOC	THC	Met.	NPD/ PAH
Krafla SPS			**477250**	**6671690**						
KRF1	45	250	477427	6671867		5	1	3	3	3
KRF2	45	500	477604	6672044		5	1	3	3	3
KRF3	135	250	477427	6671513		5	1	3	3	3
KRF4	135	500	477604	6671336		5	1	3	3	3
KRF5	135	1000	477957	6670983		5	1	3	3	3
KRF6	225	250	477073	6671513		5	1	3	3	3
KRF7	225	500	476896	6671336		5	1	3	3	3
KRF8	315	250	477073	6671867		5	1	3	3	3
KRF9	315	500	476896	6672044		5	1	3	3	3
Krafla UWP			**472170**	**6676425**						
KRF10	45	250	472347	6676602		5	1	3	3	3
KRF11	45	500	472524	6676779		5	1	3	3	3
KRF12	135	250	472347	6676248		5	1	3	3	3
KRF13	135	500	472524	6676071		5	1	3	3	3
KRF14	135	1000	472877	6675718		5	1	3	3	3
KRF15	225	250	471993	6676248		5	1	3	3	3
KRF16	225	500	471816	6676071		5	1	3	3	3
KRF17	315	250	471993	6676602		5	1	3	3	3
KRF18	315	500	471816	6676779		5	1	3	3	3
Krafla/Askja			**477400**	**6664000**						
KRF19	45	250	477577	6664177		5	1	3	3	3
KRF20	45	500	477754	6664354		5	1	3	3	3
KRF21	135	250	477577	6663823		5	1	3	3	3
KRF22	135	500	477754	6663646		5	1	3	3	3
KRF23	135	1000	478107	6663293		5	1	3	3	3
KRF24	225	250	477223	6663823		5	1	3	3	3
KRF25	225	500	477046	6663646		5	1	3	3	3
KRF26	315	250	477223	6664177		5	1	3	3	3
KRF27	315	500	477046	6664354		5	1	3	3	3
Sum						**45**	**45**	**135**	**135**	**135**


Krafla UWP
Krafla SPS
Krafla/Askja
6676000
6674000
6672000
6670000
6668000
6666000
6664000
472000
474000
476000
478000


KRF27
KRF20
KRF26
KRF19
Krafla/Askja
KRF24
KRF21
KRF25
KRF22
KRF23
6664300
6664200
6664100
6664000
6663900
6663800
6663700
6663600
6663500
6663400
6663300
477100
477200
477300
477400
477500
477600
477700
477800
477900
478000
478100

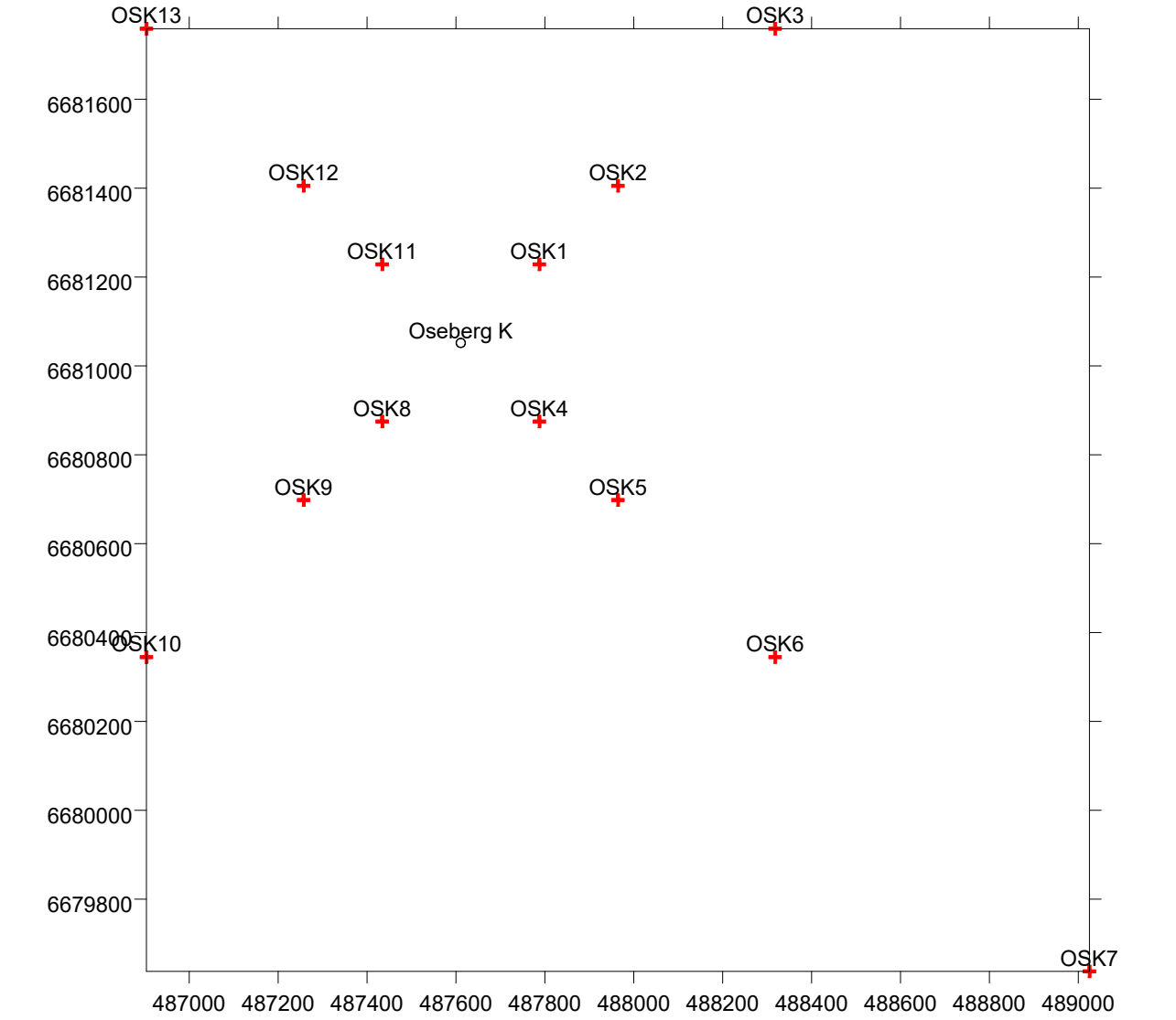

KRF9
KRF2
6672000
6671900
KRF8
KRF1
6671800
6671700
Krafla SPS
6671600
6671500
KRF6
KRF3
6671400
KRF7
KRF4
6671300
6671200
6671100
6671000
KRF5
476900
477000
477100
477200
477300
477400
477500
477600
477700
477800
477900



Figur 3-68 Stasjoner Krafla 2021.

3.34 Oseberg K (region III)

Equnior ønsker en undersøkelse på Oseberg K i region 3. Program som vist under



Name	Øst	Nord	Ret	Avst	Bio	Korn	THC	Met	PAH
K	487610.8	6681051.7							
OSK1	487787.5767	6681228.477	45	250	5	1	3	3	3
OSK2	487964.3534	6681405.253	45	500	5	1	3	3	3
OSK3	488317.9068	6681758.807	45	1000	5	1	3	3	3
OSK4	487787.5767	6680874.923	135	250	5	1	3	3	3
OSK5	487964.3534	6680698.147	135	500	5	1	3	3	3
OSK6	488317.9068	6680344.593	135	1000	5	1	3	3	3
OSK7	489025.0136	6679637.486	135	2000	5	1	3	3	3
OSK8	487434.0233	6680874.923	225	250	5	1	3	3	3
OSK9	487257.2466	6680698.147	225	500	5	1	3	3	3
OSK10	486903.6932	6680344.593	225	1000	5	1	3	3	3
OSK11	487434.0233	6681228.477	315	250	5	1	3	3	3
OSK12	487257.2466	6681405.253	315	500	5	1	3	3	3
OSK13	486903.6932	6681758.807	315	1000	5	1	3	3	3

Figur 3-69 Stasjoner Oseberg K 2021.

3.35 Veslefrikk (region III)

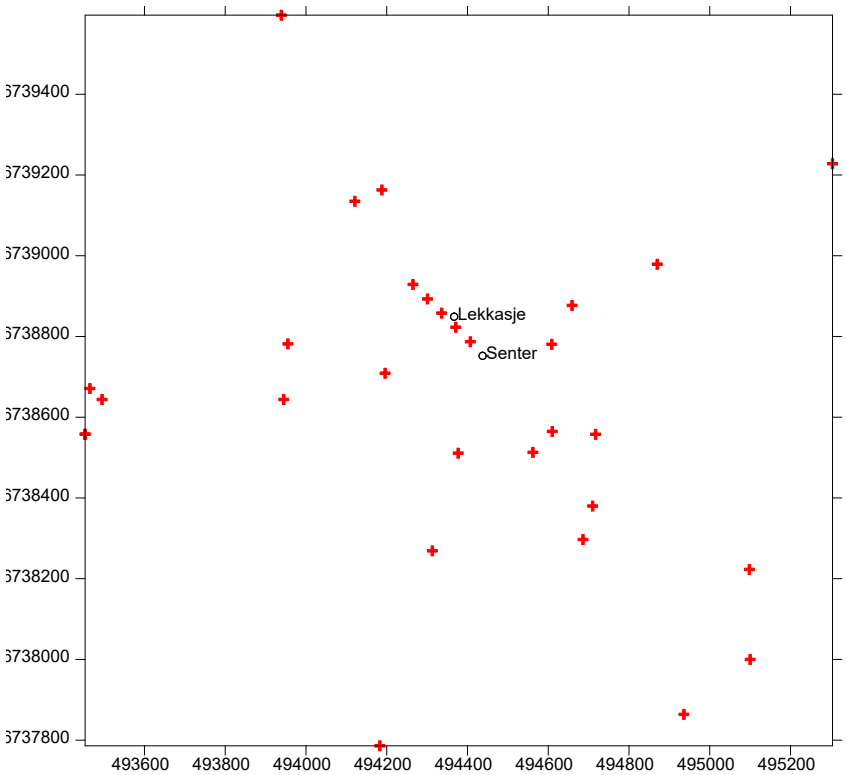
Veslefrikk er lokalisert i region 3 (Oseberg-området). Operatør på feltet er Equinor og de ønsker å gjennomføre en egen undersøkelse i området for en tidligere lekkasje for å forsøke å avgrense det kontaminerte området ytterligere.

Program 2021

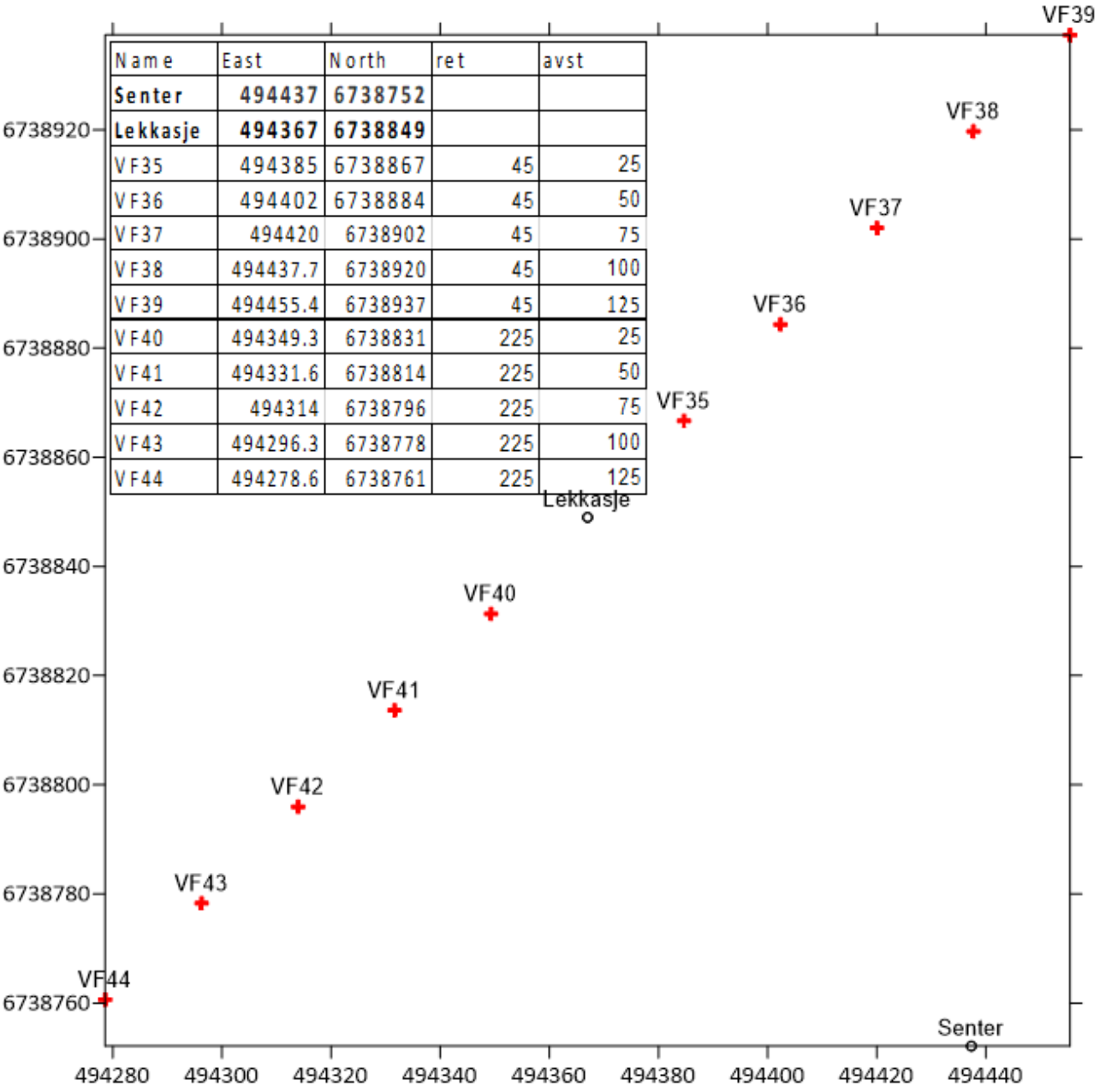
Det er lagt opp til å undersøke et transekt i nordøstlig retning. Miljødirektoratet ønsker også at det tas prøver for PFC forbindelser på Veslefrikk.

Tabell 3-76 Foreslått prøvetakingsprogram Veslefrikk 2021. Koordinater i ED50 UTM31.

Veslefrikk	Retn.	Avstand	Øst	Nord	Dyp	BIO	Korn/ TOC	THC	Met.	NPD/ PAH	PFC
Lekkasje			**494367**	**6738849**							
VF35	45	25	494385	6738867				3	3	3	1
VF36	45	50	494402	6738884				3	3	3	1
VF37	45	100	494438	6738920				3	3	3	1
VF38	45	125	494455	6738937				3	3	3	1
VF39	225	25	494349	6738831				3	3	3	1
VF40	225	50	494332	6738814				3	3	3	1
VF41	225	100	494296	6738778				3	3	3	1
VF42	225	125	494279	6738761				3	3	3	1
Sum								**24**	**24**	**24**	**8**



Figur 3-70 Lokalisering av senter, lekkasjepunkt og eksisterende prøvetakingsstasjoner på Veslefrikk.



Name	East	North	ret	avst
Senter	**494437**	**6738752**		
Lekkasje	**494367**	**6738849**		
VF35	494385	6738867	45	25
VF36	494402	6738884	45	50
VF37	494420	6738902	45	75
VF38	494437.7	6738920	45	100
VF39	494455.4	6738937	45	125
VF40	494349.3	6738831	225	25
VF41	494331.6	6738814	225	50
VF42	494314	6738796	225	75
VF43	494296.3	6738778	225	100
VF44	494278.6	6738761	225	125

Figur 3-71 Stasjoner Veselfrikk, 2021.

3.36 Skogul

Skogul (PL460) ligger i den midtre delen av norsk sektor i Nordsjøen, 30 kilometer nordøst for Alvheim-feltet. Vanndybden er 110 meter. Aker BP er operatør på feltet

Utslipp og boreaktivitet

Utslippsdata og boreaktivitet på Gudrun i siste 3-års periode er vist i tabellen under.

Tabell 3-77 Utslippsdata og boreaktivitet for Skogul i perioden 2018-2021.

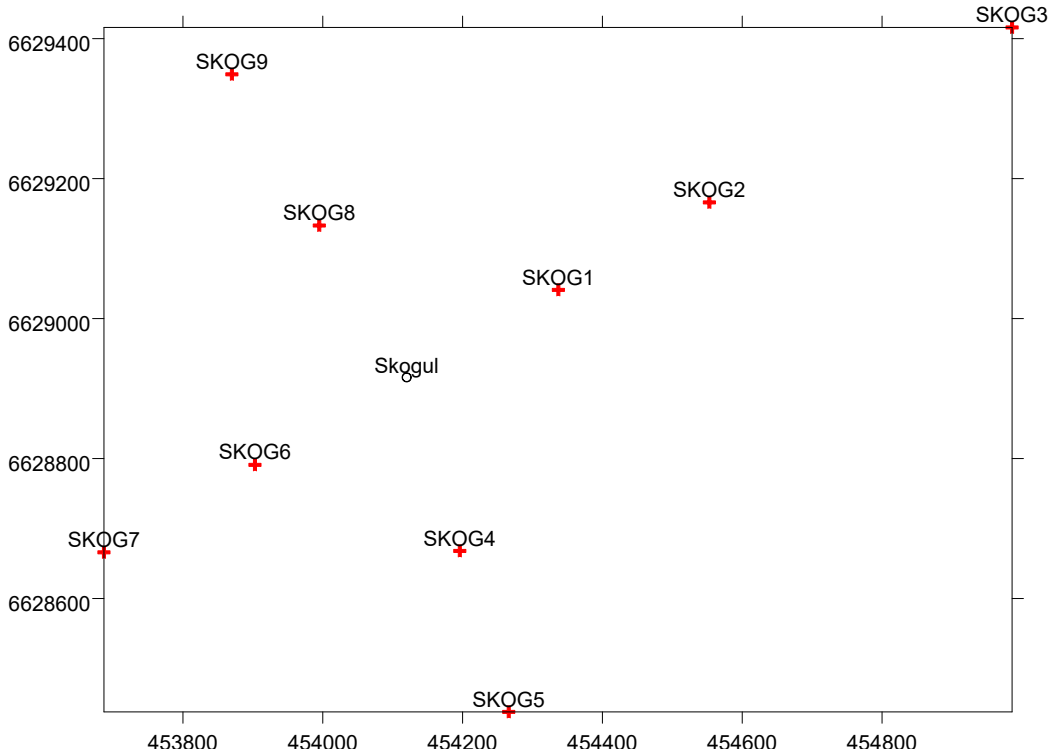
Skogul	2018	2019	2021
Type utslipp/ aktivitet			
Antall brønner boret	0	1	1
Utslipp (tonn)			
Baritt	0	157.8	0
Borekaks	0	929	0
Vannbasert borevæske	0	1593.35	0
Sementeringskjemikalier	0	5.3	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)	0	0	
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Program 2021

Undersøkelsen i 2021 er første gangs overvåking og derfor er det samme program som grunnlagsundersøkelsen i 2019.

Tabell 3-78 Foreslått prøvetakingsprogram Skogul 2021. Koordinater i ED50 UTM31.

Skogul	Retn.	Avstand	Øst	Nord	Dyp	BIO	Korn/TOC	THC	Met.	NPD/PAH
Skogul			454120	6628916						
SKOG1	60	250	454337	6629041	105	5	1	3	3	3
SKOG2	60	500	454553	6629166	105	5	1	3	3	3
SKOG3	60	1000	454986	6629416	103	5	1	3	3	3
SKOG4	163	259	454196	6628668	107	5	1	3	3	3
SKOG5	163	500	454266	6628438	107	5	1	3	3	3
SKOG6	240	250	453903	6628791	106	5	1	3	3	3
SKOG7	240	500	453687	6628666	110	5	1	3	3	3
SKOG8	330	250	453995	6629133	109	5	1	3	3	3
SKOG9	330	500	453870	6629349	105	5	1	3	3	3
Sum						**45**	**9**	**27**	**27**	**27**



Figur 3-72 Stasjoner Skogul 2021.

4 TOTALT ANTALL STASJONER/ANALYSER

Totalt antall planlagte analyser er vist i tabellen under. Totalt er 338 stasjoner inkludert i årets program.

Tabell 4-1 Antall stasjoner/analyser inkludert i overvåkingsprogrammet for region 2 2021.

Felt	Antall stasjoner	Bio	Korn	TOC	THC	Metall	NPD/PAH	Radio	PFC
Regionale	15	75	15	15	45	45	45	3	0
Johan Sverdrup	20	85	17	17	60	60	15	0	0
Johan Sverdrup O	9	45	9	9	27	27	27	0	0
Johan Sverdrup P	4	20	4	4	12	12	12	0	0
Gaupe Nord	0	0	0	0	0	0	0	0	0
Gaupe Sør	0	0	0	0	0	0	0	0	0
Sleipner Vest	10	30	6	6	30	30	18	0	0
Sleipner Øst	7	0	0		21	21	6	0	0
Grane	12	20	4	4	36	36	6	27	0
Svalin C	5	0	0	0	15	15	6	0	0
Heimdal	6	0	0	0	18	18	6	0	0
Volve	6	30	6	6	18	18	9	0	0
Gudrun	5	20	4	4	15	15	6	0	0
Gina Krog	9	0	0	0	27	27	6	0	0
Utgard	9	45	9	9	27	27	27	0	0
Balder	38	125	25	25	114	114	75	0	0
Jotun	13	40	8	8	36	36	18	12	0
Ringhorne	9	25	5	5	33	33	18	0	0
Varg	8	20	4	4	15	15	9	0	0
Byggve	0	0	0	0	0	0	0	0	0
Atla	0	0	0	0	0	0	0	0	0
Skirne	0	0	0	0	0	0	0	0	0
Bøyla	5	20	4	4	15	15	6	0	0
Volund	9	20	4	4	27	27	6	0	0
Alvheim	5	20	4	4	15	15	6	15	0
Vilje	8	20	4	4	24	24	6	0	0
Ivar Aasen	9	20	4	4	27	27	6	0	0
Jette	5	25	5	5	15	15	3	0	0
NOAKA (Aker BP)	45	225	45	45	135	135	135	0	0
Edvard Grieg	7	20	4	4	21	21	6	0	0
Breidablikk	9	45	9	9	27	27	27	0	0
Hanz	9	45	9	9	27	27	27	0	0
Vale	8	0	0	0	24	24	6	0	0
Krafla	27	135	27	27	81	81	81	0	0
Oseberg K[1)]	13	65	13	13	39	39	39	0	0
Veslefrikk[1)]	8	0	8	8	24	24	24	0	8
Skogul	9	45	9	9	27	27	27	0	0
Sum	**361**	**1285**	**265**	**265**	**1077**	**1077**	**714**	**57**	**8**

1) Region 3

5 REFERANSER

Miljødirektoratet, 2015. Miljøovervåking av petroleumsvirksomheten til havs. M-300. 60 pp.

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STIM, 2018. Miljøovervåking av olje- og gassfelt i Region II, 2018. Hovedrapport. Rapport nr.:26-2019. Dato:10.12.2019.

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Vi leverer klassifisering, sertifisering, teknisk risiko- og pålitelighetsanalyse sammen med programvare, datahåndtering og uavhengig ekspertrådgivning til maritim sektor, til olje- og gass-sektoren, og til energibedrifter. Med 80,000 bedriftskunder på tvers av alle industrisektorer er vi også verdensledende innen sertifisering av ledelsessystemer.

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MILJØOVERVÅKING REGION VI

Program Region VI 2021

Equinor Energy AS

Rapportnr.: 2018-0092, Rev. 00
Dokumentnr.: 117T95H1-4
Dato: 2021-03-19



Prosjektnavn:	Miljøovervåking Region VI	DNV GL AS Oil & Gas
Rapporttittel:	Program Region VI 2021	Environmental Monitoring
Oppdragsgiver:	Equinor Energy AS, CAP Postboks 8500	Veritasveien 1
	4035 Stavanger	1363 Høvik
	Norway	Norway
Kontaktperson:	Rolf C. Sundt og Mari-Anne Hetle	Tel:
Dato:	2021-03-19	NO 945 748 931 MVA
Prosjektnr.:	10075490	
Org. enhet:	Environmental Monitoring	
Rapportnr.:	2018-0092, Rev. 00	
Dokumentnr.:	117T95H1-4	

Levering av denne rapporten er underlagt bestemmelsene i relevant(e) kontrakt(er):
CONTRACT NO.4600017024/PO 4503600607

Oppdragsbeskrivelse: Utkast program region 6 2021. Etter programmøtet med Miljødirektoratet.

Utført av:	Verifisert av:	Godkjent av:
Thomas Møskeland Senior Principal Consultant	Amund Ulfsnes Principal Consultant	Tor Jensen Vice President - Head of Section

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☐ Ingen distribusjon (konfidensiell)

Nøkkelord:
Sedimenter, hydrokarboner, metaller, bløtbunnsfauna, program

Rev.nr.	Dato	Årsak for utgivelser	Utført av	Verifisert av	Godkjent av
0	[yyyy-mm-dd]	First issue			

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1 INNLEDNING

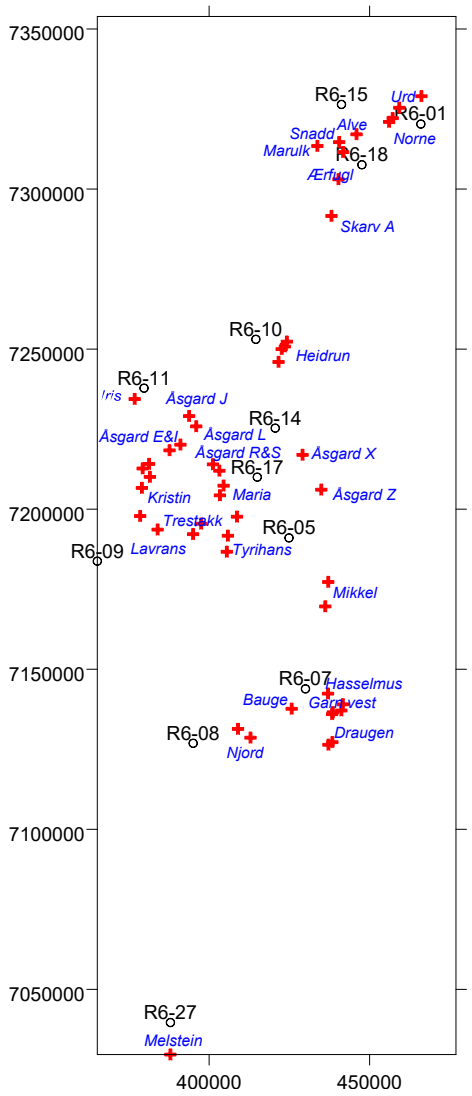
På oppdrag fra Equinor, Wintershall Norge, Vår Energi, Aker BP, OKEA, OMV og Lundin, har DNV utarbeidet et innsamlingsprogram for miljøundersøkelsen i Region VI i 2021. Region VI omfatter Norskehavet mellom 64 - 66°N. Gjeldende innsamlingsprogram er basert på resultater fra foregående undersøkelse og det er forventet endringer i programmet basert på eksempelvis utslippshistorikk og andre hendelser helt frem til prøvetakingstidspunkt. Dette programforslaget er ennå ikke gjennomgått i møte mellom operatører, Miljødirektoratet og ekspertgruppen, og det vil sannsynligvis komme endringer frem mot endelig program.

Programmet er utarbeidet etter føringene i veileder Miljøovervåking av petroleumsvirksomheten til havs (M300- 2015).

Om overvåkingsundersøkelser (etter første gangs overvåking) sier veilederen bl.a. at *" Omfanget av de feltspesifikke overvåkingsundersøkelsene må gjenspeile resultatene fra foregående miljøundersøkelse, samt aktivitets- og utslippsnivå på de respektive felt. Det medfører at enkelte stasjoner eller analyser kan utelukkes og eventuelt nye inkluderes i samråd med Miljødirektoratet. Det endelige omfanget bestemmes på årlige planleggingsmøter som beskrevet i kapittel 1.4".*

Generelt er stasjonsutvalget på de enkelte feltene for 2021 basert på resultatene fra 2018-undersøkelsen. I forkant av undersøkelsen i 2021 bør bore- og utslippshistorikk i perioden etter forrige undersøkelse inkluderes i vurderingene.

Lokalisering av de regionale stasjonene og feltene som inngår i programmet for Region 6 i 2021, er listet opp i Tabell 1-1 og vist i Figur 1-1.



Figur 1-1 Oversikt over regionale stasjoner (sirkler) og feltsentere templater (røde kryss), Region VI 2021.

Tabell 1-1 Felt som er inkludert i programmet i tillegg til de regionale stasjonene

Equinor	Kristin, Njord og Nordvestflanken, Norne, Heidrun med Nordflanken, Åsgard, Urd, Alve, Tyrihans, Fossekall, Dompap, Trestakk, Bauge, Mikkel, Lavrans L
OKEA	Draugen, Garn, Rogn Sør, Hasselmus
Vår energi	Marulk
AkerBP Norge	Skarv og Idun, Ærfugl, Outer snadd
Wintershall	Maria, Dvalin
OMV	Iris
Lundin	Melstein (Grunnlag)

Innsamlings- og analyseprogram er vist for hvert felt i kapitlene under og samlet for Regionen. Alle oppgitte posisjoner og kart er oppgitt i ED50 UTM sone 32.

2 METODE

2.1 Generelt

Operatørene på Norsk sokkel er pålagt å utføre miljøovervåking på norsk sokkel for å ha kunnskap om hvilke miljøeffekter deres virksomhet har eller kan få. På et overordnet nivå skal omfanget av overvåkingen stå i forhold til forventet risiko og videre kunne:

- ✓ Påvise trender og resultatene som må kunne sammenliknes over tid
- ✓ Gi grunnlag for prognoser for forventet utvikling

Det skilles mellom tre stasjonstyper:

- ✓ Regional stasjon: Stasjon som skal være upåvirket og gjenspeile naturlig variasjon og regionale forhold og endringer. Tre regionale stasjoner skal tilordnes hvert felt og inneha tilnærmet samme karakteristikker som feltet de representerer.
- ✓ Feltspesifikke grunnlagsstasjoner: Stasjoner som skal undersøkes minst i forkant av produksjonsoppstart evt også i forkant av leteboring.
- ✓ Feltspesifikke overvåkingsstasjoner: Stasjoner som skal gi informasjon om tilstanden rundt installasjonene.

Hensikten med grunnlagsundersøkelser er å etablere bakgrunnsdata for de ulike parameterne, samt å gi en 'robust' gjennomsnittsverdi som basis for en eventuell lokal LSC (Limit of Significant Contamination).

En grunnlagsundersøkelse er gyldig i seks år, med mindre Miljødirektoratet i samråd med relevante faginstanser fastsetter en annen varighet.

Etter den første undersøkelsen gjennomføres overvåkingsundersøkelsene fortrinnsvis hvert tredje år, som en del av de regionale overvåkingsundersøkelsene. Endring i frekvens for en feltspesifikk overvåking skal godkjennes av myndighetene på forhånd.

Etter at produksjonsfasen er avsluttet gjennomføres det ytterligere to overvåkingsundersøkelser med tre års mellomrom. Muligheten for å legge inn stasjoner så nært som mulig til installasjonens tidligere posisjon bør vurderes.

Omfanget av de feltspesifikke overvåkingsundersøkelsene må gjenspeile resultatene fra foregående miljøundersøkelse, samt aktivitets- og utslippsnivå på de respektive felt. Det medfører at enkelte stasjoner eller analyser kan utelukkes og eventuelt nye inkluderes i samråd med Miljødirektoratet.

2.2 Gjennomføring av program

Feltarbeidet, analyser av prøver og rapportering skal utføres i hht. gjeldende retningslinjer (M300).

For innsamlingen av prøvene til sedimentologiske, kjemiske og biologiske analyser skal det brukes godkjent grabb. For å unngå forstyrrelse av sedimentoverflaten skal hastigheten på grabben ikke overstige 0,2 m/sek når den treffer sjøbunnen.

På stasjoner der bare kjemiprøver skal analyseres, inngår analyser av THC og metaller i hht. retningslinjene. NPD/PAH analyseres på utvalgte stasjoner. I tillegg skal NPD/PAH analyseres på stasjoner der innholdet av THC er over 50 mg/kg.

Prøver for analyse av kornstørrelse og TOC skal samles inn fra 0 – 5 cm sedimentdyp.

I biologiprøvene som samles inn skal sedimenthøyden eller volum av sediment registreres.

Posisjoneringen av fartøyet som brukes skal som minimum benytte differensiell GPS. Fartøyet må holdes innenfor ± 50 m på stasjonsposisjonen. Fartøyet må ha et kalibrert ekkolodd for å registrere dypet på hver stasjon.

2.3 Regionale stasjoner

Hvilke regionale stasjoner som inkluderes er avhengig av hvilke felt som skal inngå i programmet samt om det skal gjennomføres grunnlagsundersøkelser i regionen.

Generelt står det i veilederen (M300):

- ✓ Ved grunnlagsundersøkelser før produksjon bør minimum tre av de regionale stasjonene knyttes opp mot det aktuelle feltet.
- ✓ De regionale stasjonene bør være de samme fra år til år både i grunnlagsundersøkelsen og ved senere overvåking.
- ✓ Ved overvåkingsundersøkelser bør i utgangspunktet alle de etablerte regionale stasjonene inkluderes.

En oversikt over de etablerte regionale stasjonene i region VI og de feltene som er foreslått inkludert i overvåkingen i 2021 er visti Figur 1-1. Totalt er det inkludert 13 regionale stasjoner.

I undersøkelsen i 2018 var 13 regionale stasjoner inkludert. Stasjonsdypet varierte fra 270 til 395 m (DNV GL 2018). Sedimentet på de regionale stasjonene ble hovedsakelig klassifisert som silt & leire og TOC varierte fra 0,37 til 71,1 %. Konsentrasjonene av hydrokarboner varierte mellom 2,5 – 75 mg/kg og barium mellom 37 - 8862 mg/kg. Faunaen ble vurdert å være forstyrret på 2 stasjoner, henholdvis på Njord og Fenja, mens øvrig fauna ble vurdert å være uforstyrret på alle stasjonene.

Posisjoner og analyseprogram for de regionale stasjonene er vist i Tabell 2-1. De regionale stasjonene R6-12 og R6-13 er utelatt fra program i 2021, men kan vurderes inkludert igjen avhengig av endelig program i 2021.

I rapporten fra 2018 er det nevnt at den regionale stasjonen R6-11 er lokalisert ca. 750 m sydvest for en plugget brønn og bør flyttes. Denne stasjonen er derfor flyttet (2000 m øst)

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke stasjon Fosekall og Dompap i undersøkelsen. Stasjon R6-20 er derfor også tatt ut av programmet.

Tabell 2-1 Stasjonsposisjoner og antall analyser på de regionale stasjonene i Region VI, 2021 (ED50 UTM sone 32).

St. nr.	Dyp	UTM Øst	UTM Nord	THC	PAH	Met	Geo	Bio	Radio
R6-01	388	465959	7320299	3	3	3	1	5	
R6-05	261	424888	7191031	3	3	3	1	5	
R6-07	267	430017	7143866	3	3	3	1	5	
R6-08	334	395022	7126872	3	3	3	1	5	
R6-09	310	365162	7183767	3	3	3	1	5	3
R6-10	328	414555	7253059	3	3	3	1	5	
R6-11[1)]	318	379717	7237804	3	3	3	1	5	
R6-14	293	420600	7225320	3	3	3	1	5	
R6-15	374	441235	7326435	3	3	3	1	5	
R6-17	293	415002	7210008	3	3	3	1	5	
R6-18	380	447600	7307584	3	3	3	1	5	
R6-27[2)]		387936	7039637	3	3	3	1	5	
SUM				**36**	**36**	**36**	**12**	**60**	**3**

1) Flyttet 2000 m øst basert på anbefaling i 2018.

2) Regional stasjon for Melstein

3 FELTSPESIFIKKE PROGRAMMER

Utarbeidelse av feltspesifikke programmer er basert på veileder M300 og på følgende prinsipper generelt:

- ✓ Før produksjon bør minimum tre av de regionale stasjonene knyttes opp mot det aktuelle feltet.
- ✓ Før leteboring kan det være tilstrekkelig å inkludere kun en regional stasjon.
- ✓ Ved første overvåkingsundersøkelse på et felt, etter at boreaktiviteten er igangsatt og det har vært utslipp til sjø, bør stasjonsnettet i prinsippet være tilsvarende grunnlagsundersøkelsen.
- ✓ Både ved bruk av rutenett og aksekors bør stasjonsnettet alltid omfatte minst en stasjon i hver av de fire hovedretningene, også på felter som ikke er kjemisk kontaminert eller biologisk påvirket.
- ✓ Dersom den kjemiske kontamineringen (for Ba gjelder 2xLSC) eller den biologiske påvirkningen på et felt brer seg ut over de ytterste stasjonene, må nye stasjoner utenfor disse opprettes ved neste overvåkingsundersøkelse.
- ✓ Dersom det ikke påvises målbare effekter på biologi eller kjemi, kan stasjonsnettet reduseres ved neste sedimentundersøkelse.
- ✓ Av samme grunn, og gitt lave utslipp i mellomtiden kan det i enkelte tilfeller tillates å utvide perioden mellom undersøkelser på et felt til seks år.
- ✓ NPD, PAH og metaller bør analyseres på alle regionale stasjoner og minimum på de to nærmeste stasjonene nedstrøms, samt kontaminerte stasjoner.
- ✓ Når de to nærmeste stasjonene nedstrøms viser signifikant forhøyede verdier av THC, NPD eller PAH ved en overvåkingsundersøkelse, bør påfølgende undersøkelse inkludere NPD og PAH analyser på de innerste stasjonene langs de tre andre transektene, i tillegg til de tre stasjonene nedstrøms.
- ✓ Når de to nærmeste stasjonene nedstrøms viser signifikant forhøyede verdier i en overvåkingsundersøkelse bør påfølgende undersøkelse inkludere alle metaller på de tre stasjonene nedstrøms og de tre stasjonene som er nærmest installasjonen i de øvrige retningene.
- ✓ Dersom det ved forrige overvåkingsundersøkelse ikke ble funnet forhøyede metall-konsentrasjoner, kan disse analysene bero så fremt det ikke har vært boreaktivitet eller andre forhold av betydning for metallkonsentrasjonene i sedimentet siden forrige datainnsamling.
- ✓ Avhengig av forurensningssituasjon kan analyseprogrammet på feltspesifikke stasjoner reduseres fra og med andre overvåkingsundersøkelse
- ✓ Biologisk karakterisering gjøres på samtlige stasjoner ved grunnlagsundersøkelsen og første gangs regionale undersøkelse. I påfølgende undersøkelser bør biologisk karakterisering gjøres på regionalstasjonene og på feltstasjonene nærmest installasjonen, fortrinnsvis i avstand 250 m. Hvis feltstasjoner ved siste undersøkelse viste tegn til biologisk påvirkning eller hadde THC>50 mg/kg, bør, som et minimum, påvirkede feltstasjoner og de nærmeste upåvirkede stasjonene lenger ut på transektene undersøkes.

Det må nevnes at det har vært en avvikende praksis i forhold til veilederen de seneste årene og at dette i stor grad har blitt veiledende praksis. Det er også planlagt en oppdatering av veilederen. Den avvikende praksisen kan oppsummeres som følger:

- ✓ Fokus har vært THC-resultater. Det er ikke lagt stor vekt på barium alene, da dette ikke er toksisk og kun viser at man har borekaks tilstede (som er naturlig nært installasjonene).

- ✓ Biologi tas generelt der hvor THC har vært høy (gjerne opp mot 30-50 mg/kg eller over). Dette fordi erfaring viser oss at man må over 50 mg/kg før man ser en effekt på fauna.
    - Det er foreslått biologiprøver på ekstra stasjoner, avhengig av hvor høy stasjonen innenfor var på THC sist og resultatene generelt på feltet. Her gjøres det generelt en helhetlig vurdering av resultater og eventuelle utslipp.

- ✓ Praksis i de tilfellene hvor THC er på LSC er å beholde kjemi på den aktuelle stasjonen (uten å legge en ny utenfor).
    - I noen tilfeller fjernes stasjonen helt fra programmet, basert på resultatene på stasjonen innenfor (lav THC verdi) og/eller feltet som helhet.

- ✓ THC over LSC medfører ny stasjon utenfor, men kun kjemi (med mindre opprinnelig THC var veldig høy). Generelt må det gjøres en helhetlig vurdering av feltet.

- ✓ Stasjoner med lav THC fjernes generelt, så fremt det ikke er andre resultater som skiller seg ut, f.eks. metaller, eller at det har vært mye utslipp siden sist undersøkelse.

- ✓ Enkelte bunnrammer/felt kan også fjernes helt dersom det ikke har vært aktivitet de siste årene og resultatene forrige gang var lave (på eller under LSC).
    - Dette punktet er for så vidt i tråd med M300.

3.1 Alve

Equinor Energy AS er operatør på Alve der produksjon startet i mars 2009. Alve, som omfatter formasjonene Garn, Not, Ile og Tilje, ligger i blokk 6507 i den nordlige delen av regionen. Alve er bygd ut med en bunnramme og en produksjonsbrønn. Feltet er knyttet opp mot Norne og gassen føres i rør til Kårstø.

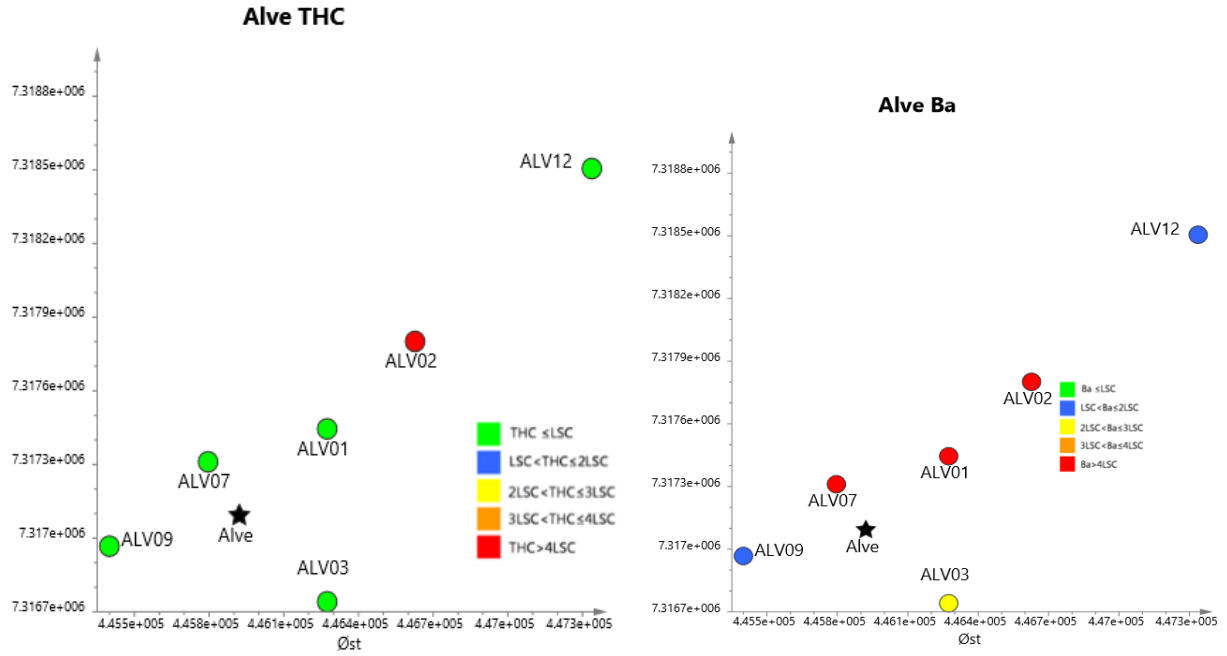
Det er ikke rapportert om boreaktvitet eller utslipp på Alve i perioden 2018-2020.

Tabell 3-1 Boreaktivitet og utslipp i senere tid ved Alve.

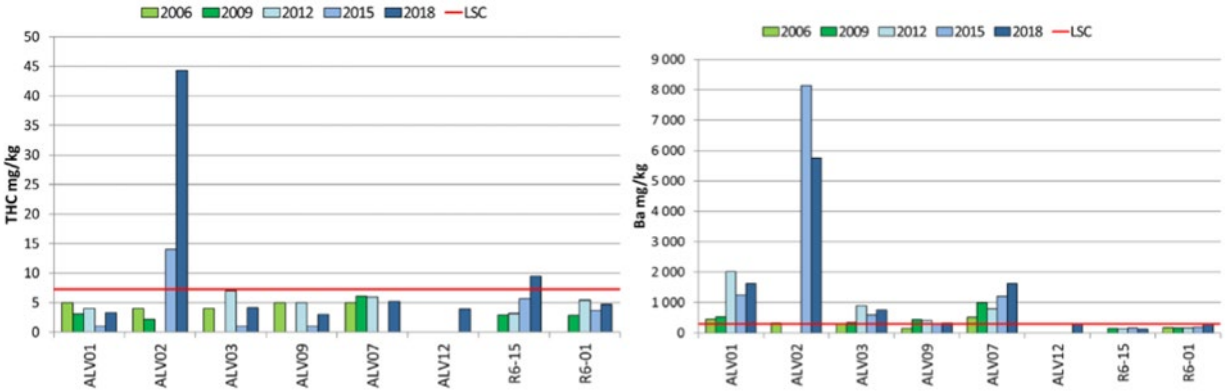
Alve	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Det ble bare samlet inn prøver for kjemianalyser i 2018, samme strategi som i 2015 hvor det også bare ble samlet inn kjemiprøver. Mengden av THC i sedimentet varierte mellom 3 – 44 mg/kg, mens mengden barium varierte fra 315 – 5767 mg/kg. Stasjonen med forhøyet THC (ALV-02; 45°/1000 m) ligger ~10 meter unna en tidligere boret brønn, 6507/3-1 som ble boret i 1990 med vannbasert mud) og det ble derfor ikke beregnet areal kontaminert med THC for feltet.

Utbredelsen av THC og Ba i sedimentet på Alve i 2018 er illustrert i Figur 3-1 og tidsserier i Figur 3-2



Figur 3-1 THC (venstre) og barium (høyre) i sediment på Alve i 2018**.**



Figur 3-2 Konsentrasjonen av THC (venstre) og Ba (høyre) på Alve over tid.

Det var bare stasjon ALV-02 som er kontaminert med THC i 2018. Konsentrasjonen var høyere i 2018 sammenliknet med 2015, men det er nær en plugget brønn så det kan forventes stor variasjon i THC konsentrasjonene. Siste faunaundersøkelse ble gjort i 2012, hvor det ble konkludert med uforstyrret fauna på feltet.

Basert på resultaten på feltet, som beskrevet over foreslås følgende:

0-90° transekt: Ytterste stasjon (ALV12) er ikke kontaminert med THC så transektet er avgrenset mhp. THC kontaminering. Foreslår å beholde samme antall stasjoner og å analysere NPD/PAH på stasjon ALV02 (kontaminert) og ALV01 (innerste stasjon). Siste faunaundersøkelse var i 2012 så foreslår å analysere biologi på kontaminert stasjon (ALV02) og stasjonen innenfor (ALV01).

Stasjon ALV02 er flyttet 100 m sammeliknet med 2018 da den er lokalisert ved en tidligere brønn (nå plugget).

90-180° transekt: Beholder den ene ikke kontaminerte stasjonen (ALV-03). Det foreslås analyse av biologi på stasjonen da det er 9 år siden forrige faunaundersøkelse.

180-270° transekt: Beholder den ene ikke kontaminerte stasjonen (ALV-09). Det foreslås analyse av biologi på stasjonen da det er 9 år siden forrige faunaundersøkelse.

270-360° transekt: Beholder den ene ikke kontaminerte stasjonen (ALV-07). Det foreslås analyse av biologi på stasjonen da det er 9 år siden forrige faunaundersøkelse.

Generelt foreslås det i å analysere for NPD og PAH på stasjoner hvor THC er 50 mg/kg eller mer.

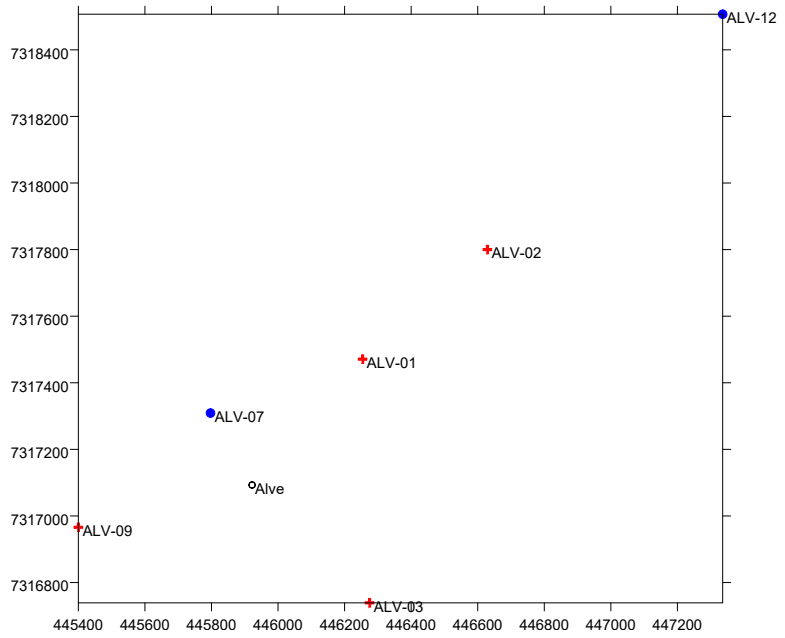
Posisjonene og type og antall analyser i 2021 er vist i Tabell 3-2.

Tabell 3-2 Stasjonsposisjoner og antall analyser på Alve, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM nord	Merknad	Bio	Korn /TOM	THC	Met.	NPD/ PAH
Sentrum	-	-	-	**445922**	**7317093**	-					
ALV-01[1)]	41	503	367	446254	7317471	Bio/Kjemi	5	1	3	3	3
ALV-02[2)]	45	1100	366	446700	7317871	Bio/Kjemi	5	1	3	3	3
ALV-12[1)]	44	1992	388	447301	7318530	Kjemi			3	3	
ALV-03	135	500	369	446275	7316739	Bio/Kjemi	5	1	3	3	
ALV-09	245	500	367	445400	7316966	Bio/Kjemi	5	1	3	3	
ALV-07	330	250	370	445797	7317309	Kjemi			3	3	
Sum prøver							**20**	**4**	**18**	**18**	**6**
Ant stasjoner							**4**	**4**	**6**	**6**	**2**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											

1) Flyttet i 2018

2) Flyttet 100 m i tråd med anbefaling i 2018



Figur 3-3 Stasjonskart Alve 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.2 Bauge

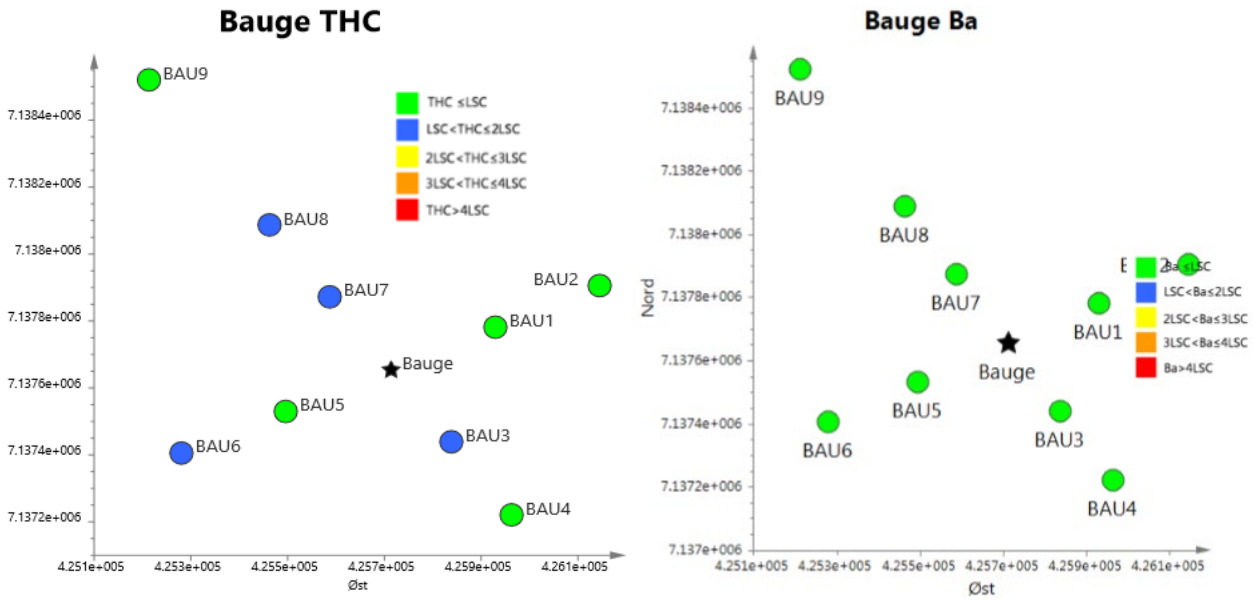
Bauge ligger om lag 16 km nordøst for tilknytningsplattformen, Njord A, og 15 km vest for Draugen. Vanndypet i områder ca. 280 m. Utbyggingen er planlagt med én havbunnsramme, to oljeprodusenter, en vanninjektor. Det ble gjennomført en grunnlagsundersøkelse på Bauge i 2018.

Det ble samlet inn prøver for biologi- og kjemianalyser i 2018. Mengden av THC i sedimentet varierte 5 – 8 mg/kg, mens mengden barium varierte fra 98 – 169 mg/kg. Det skal gjennomføres en oppfølgende undersøkelse av samme omfang som i 2018 hvis det har vært aktivitet på feltet siden 2018.

Tabell 3-3 Boreaktivitet og utslipp i senere tid ved Bauge.

Bauge	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	2
Utslipp (tonn)			
Baritt	0	0	206,63
Borekaks	0	0	523,67
Vannbasert borevæske	0	0	2490.12
Sementeringskjemikalier	0	0	8.59
Kompletteringskjemikalier	0	0	-
Olje i produsert vann/forurenset vann	0	0	0,06018
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

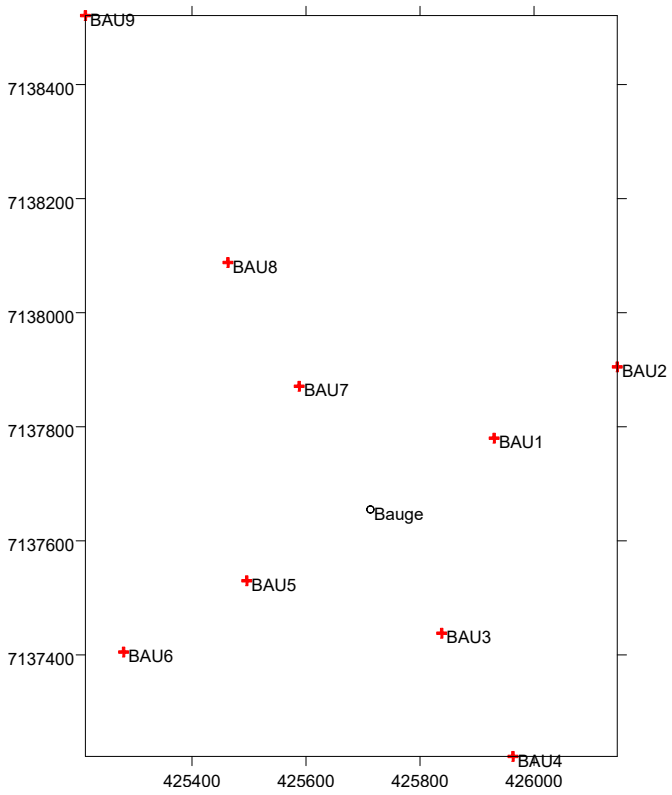
-:



Figur 3-4 THC (venstre) og barium (høyre) i sediment på Bauge i 2018**.**

Tabell 3-4 Stasjonsposisjoner og antall analyser på Bauge, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Bauge	0	0		425713	7137655						
BAU1	60	250	290	425930	7137780	Bio/kjemi	5	1	3	3	3
BAU2	60	500	292	426146	7137905	Bio/kjemi	5	1	3	3	3
BAU3	150	250	292	425838	7137438,5	Bio/kjemi	5	1	3	3	
BAU4	150	500	294	425963	7137222	Bio/kjemi	5	1	3	3	
BAU5	240	250	291	425496	7137530	Bio/kjemi	5	1	3	3	
BAU6	240	500	287	425280	7137405	Bio/kjemi	5	1	3	3	
BAU7	330	250	290	425588	7137871,5	Bio/kjemi	5	1	3	3	
BAU8	330	500	291	425463	7138088	Bio/kjemi	5	1	3	3	
BAU9	330	1000	289	425213	7138521	Bio/kjemi	5	1	3	3	
Sum prøver							**45**	**9**	**27**	**27**	**6**
Ant. Stasjoner							**9**	**9**	**9**	**9**	**2**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											



Figur 3-5 Stasjonskart for Bauge, 2021. Røde kryss:Biologi&kjemi stasjoner.

3.3 Kristin

Equinor er operatør på Kristin der produksjonen startet i 2005. Kristin ligger i blokk 6406 og 6506 i den midtre delen av regionen. Feltet er bygd ut med 12 produksjonsbrønner fordelt på fem bunnrammer tilknyttet en halvt nedsenkbar produksjonsplattform. Oljen fra feltet sendes i rør til Åsgard, mens gassen føres i rør til Kårstø.

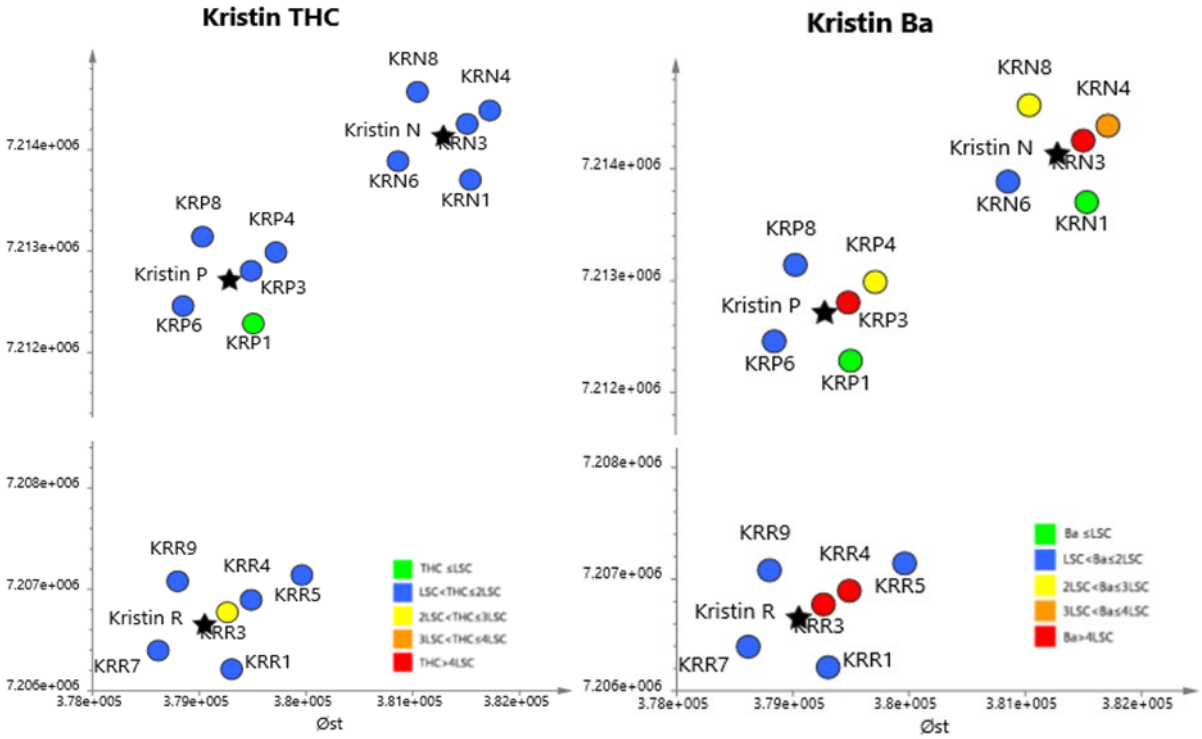
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-5.

Tabell 3-5 Boreaktivitet og utslipp i senere tid ved Kristin.

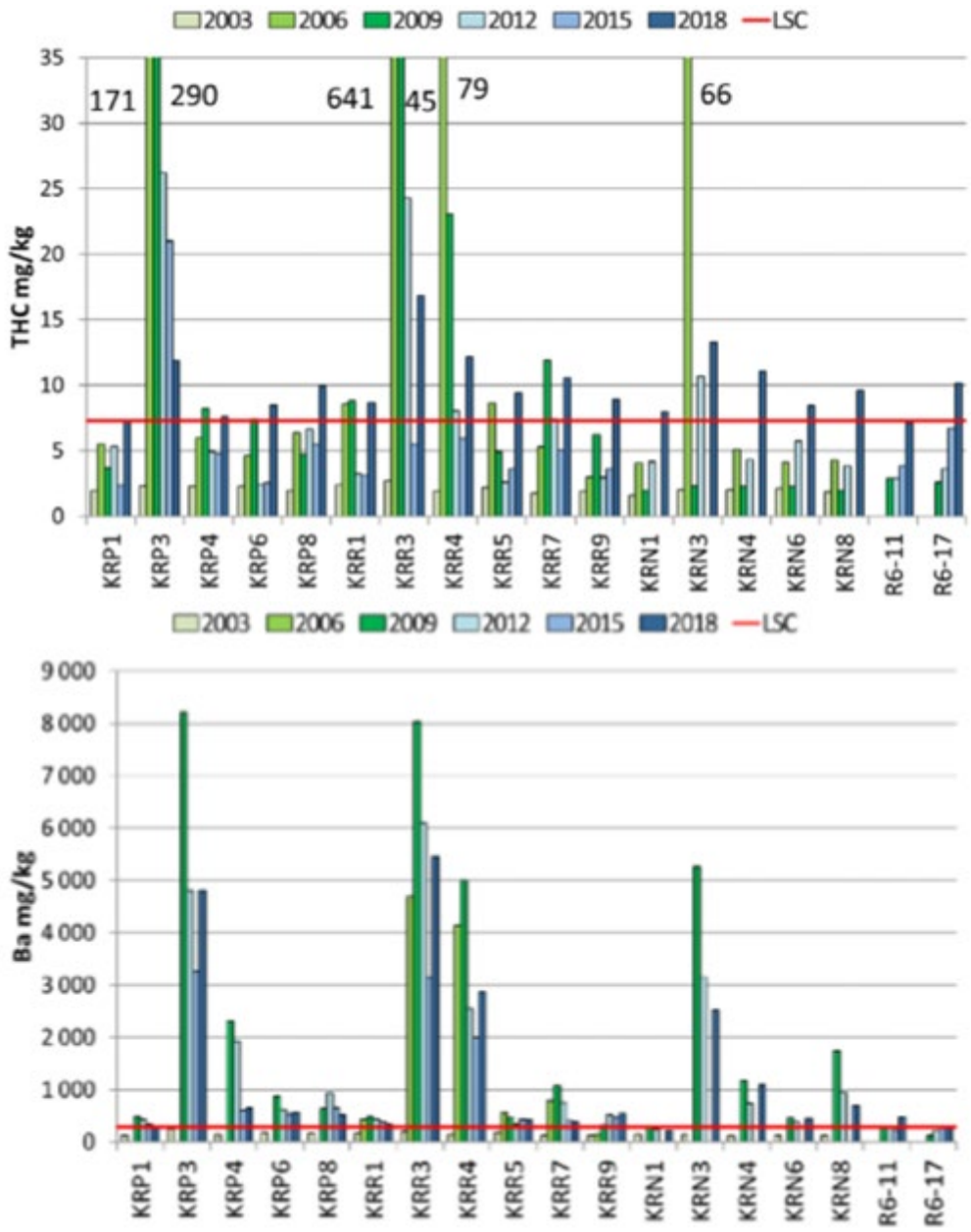
Kristin	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	15,97	14,42	10,66
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Totalt areal med sediment kontaminert med THC ved Kristin ble i 2018 beregnet til mellom 3,1 (lav) og 12,6 (høy) km^2. Mengden av THC i sedimentet i 2018 varierte fra 7,2 – 16,8 mg/kg, mens mengden av Ba varierte fra 214 – 5456 mg/kg. Faunaen ble vurdert å være uforstyrret (undersøkt kun på N-rammen).

Utbredelsen av THC og Ba i sedimentet på Kristin er illustrert i Figur 3-6 og tidserier for konsentrasjonene av THC og Ba er vist i Figur 3-7.



Figur 3-6 THC (venstre) og barium (høyre) i sediment på Kristin i 2018**.**



Figur 3-7 Konsentrasjonen av THC (øverst) og Ba (nederst) på Kristin over tid.

Basert på 2018 undersøkelsen foreslås følgende:

N-ramme:

0-90° transekt: To stasjoner ble undersøkt i 2018, KRN3 og 4 og begge var kontaminert med THC. Foreslår å legge til en stasjon utenfor KRN4 for å eventuelt avgrense forurensingen og stasjon KRN5 (60°/1000 m) er en kanditat. Faunaen er vurdert å være ufortysyrret i 2018 så det foreslås å bare analysere fauna på stasjon KRN3 (innerste stasjon). I tråd med veilederen er det lagt til analyser for NPD/PAH på stasjon KRN3 og 4 (to innerste stasjoner antatt nedstrøms).

90-180° transekt: Det foreslås å bare beholde den ene stasjonen i dette transektet (KRN1) da THC på stasjonen var marginalt over LSC i 2018.

180-270° transekt: Det foreslås å bare beholde den ene stasjonen i dette transektet (KRN6) da THC på stasjonen er marginalt over LSC.

270-360° transekt: Det foreslås å beholde stasjon KRN8 samt å legge til en stasjon utenfor for å avgrense eventuell foruensing (stasjon KRN9).

P-ramme:

0-90° transekt: To stasjoner ble undersøkt i 2018, KRP3 og 4. Begge stasjonene var kontaminert med LSC men stasjon 4 var mer på nivå med LSC. Det foreslås å beholde de samme stasjonene i 2021. I tråd med veilederen er analyser for NPD/PAH på stasjonene beholdt (to innerste stasjoner antatt nedstrøms). Fauna ble ikke undersøkt i 2018 så det er lagt til faunanalyser på innerste stasjon i 2021.

90-180° transekt: I 2018 ble stasjon KRP1 undersøkt og THC<LSC. Samme stasjon er inkludert i programmet i 2021.

180-270° transekt: I 2018 ble stasjon KRP6 undersøkt og var på nivå med LSC. Samme stasjon er inkludert i programmet i 2021.

270-360° transekt: I 2018 ble stasjon KRP8 undersøkt og THC>LSC. Samme stasjon er inkludert i programmet i 2021 samt at det er foreslått en stasjon utenfor for å avgrense forurensingen (stasjon KRP 9).

R-ramme:

0-90° transekt: Tre stasjoner ble undersøkt i 2018, KRR3, 4 og 5. Alle stasjonene var kontaminert med LSC. Det foreslås å beholde de samme stasjonene i 2021. I tråd med veilederen er analyser for NPD/PAH på stasjonene beholdt (to innerste stasjoner antatt nedstrøms). Fauna ble ikke undersøkt i 2018 så det er lagt til faunanalyser på innerste stasjon i 2021.

90-180° transekt: I 2018 ble stasjon KRR1 undersøkt og THC<LSC. Samme stasjon er inkludert i programmet i 2021 og det er lagt til en stasjon utenfor for å avgrense eventuell forurensing (KRR2).

180-270° transekt: I 2018 ble stasjon KRR7 undersøkt og THC>LSC. Samme stasjon er inkludert i programmet i 2021 og det er lagt til en stasjon utenfor for å avgrense eventuell forurensing (KRR8).

270-360° transekt: I 2018 ble stasjon KRR9 undersøkt og THC>LSC. Samme stasjon er inkludert i programmet i 2021 samt at det er foreslått en stasjon utenfor for å avgrense forurensingen (stasjon KRR 10).

Note: ***Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke foreslått stasjoner på 1000 m i programmet samt at det bare tas biologiprøver på stasjon KRR3 og 4.***

Q-ramme: Q -rammen ble ikke undersøkt i 2018.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke Q rammen i undersøkelsen in 2021.

S_ramme: S -rammen ble ikke undersøkt i 2018.

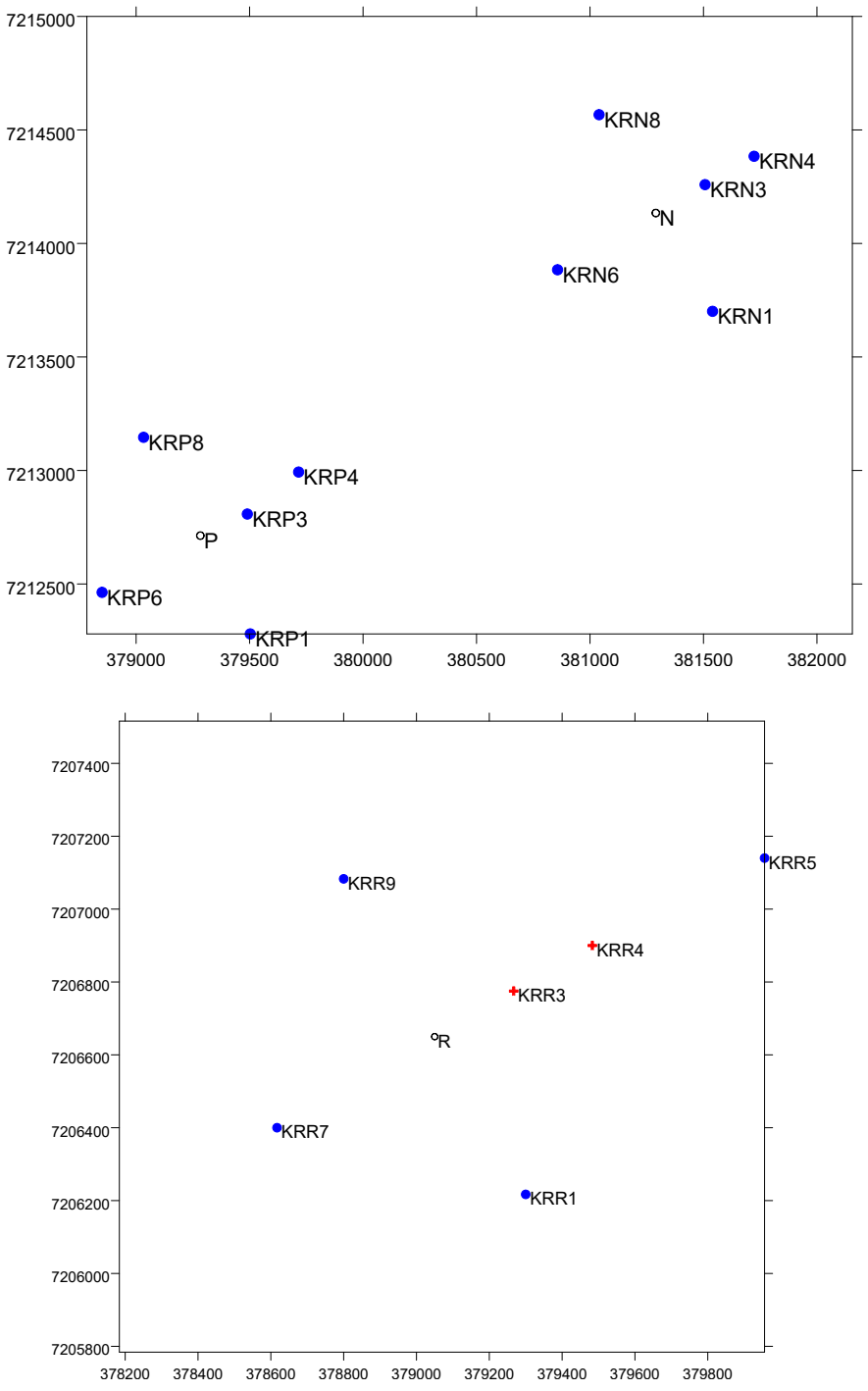
Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke S rammen i undersøkelsen in 2021.

Generelt foreslås det i å analysere for NPD og PAH på stasjoner hvor THC er 50 mg/kg eller mer.

Posisjoner og analyseprogram for stasjonene som er med i 2018 er vist i Tabell 3-6 og Figur 3-8.

Tabell 3-6 Stasjonsposisjoner og antall analyser på Kristin, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
P	**-**	**-**		**379283**	**7212713**						
KRP1	150	500	369	379503	7212280	Kjemi			3	3	
KRP3	60	250	372	379490	7212808	Bio/Kjemi			3	3	3
KRP4	60	500	370	379716	7212993	Kjemi			3	3	3
KRP6	240	500	374	378850	7212463	Kjemi			3	3	
KRP8	330	500	375	379033	7213146	Kjemi			3	3	
R	**-**	**-**		**379050**	**7206650**						
KRR1	150	500	350	379300	7206217	Kjemi			3	3	
KRR3	60	250	350	379267	7206775	Bio/kjemi	5	1	3	3	3
KRR4	60	500	354	379483	7206900	Bio/kjemi	5	1	3	3	3
KRR5	60	1000	353	379956	7207140	Kjemi			3	3	
KRR7	240	500	354	378617	7206400	Kjemi			3	3	
KRR9	330	500	353	378800	7207083	Kjemi			3	3	
N	**-**	**-**		**381290**	**7214134**						
KRN1	150	500	364	381540	7213701	Kjemi			3	3	
KRN3	60	250	370	381507	7214259	Bio/ Kjemi			3	3	3
KRN4	60	500	367	381723	7214384	Kjemi			3	3	3
KRN6	240	500	372	380857	7213884	Kjemi			3	3	
KRN8	330	500	370	381040	7214567	Kjemi			3	3	
Sum prøver							**10**	**2**	**48**	**48**	**18**
Ant stasjoner							**2**	**2**	**16**	**16**	**6**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											



Figur 3-8 Stasjonskart for Kristin N & P (øverst) og R,S & Q (nederst), 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.4 Njord og Nordvestflanken

Equinor er operatør på Njord og Nordvestflanken der produksjonen startet i 1997. Njord og Njord Nordvestflanken ligger i blokk 6407 i den sørlige delen av regionen. Njord er bygget ut med en halvt nedsenkbar bore-, bolig og produksjonsplattform i stål og et lagerskip, Njord B. Plattformen er tilknyttet

brønner med fleksible stigerør. Oljen blir transportert til land med tankskip, mens gassen transporteres i rør til Kårstø.

Opplysninger om boring og utslipp på feltet er vist i Tabell 3-7.

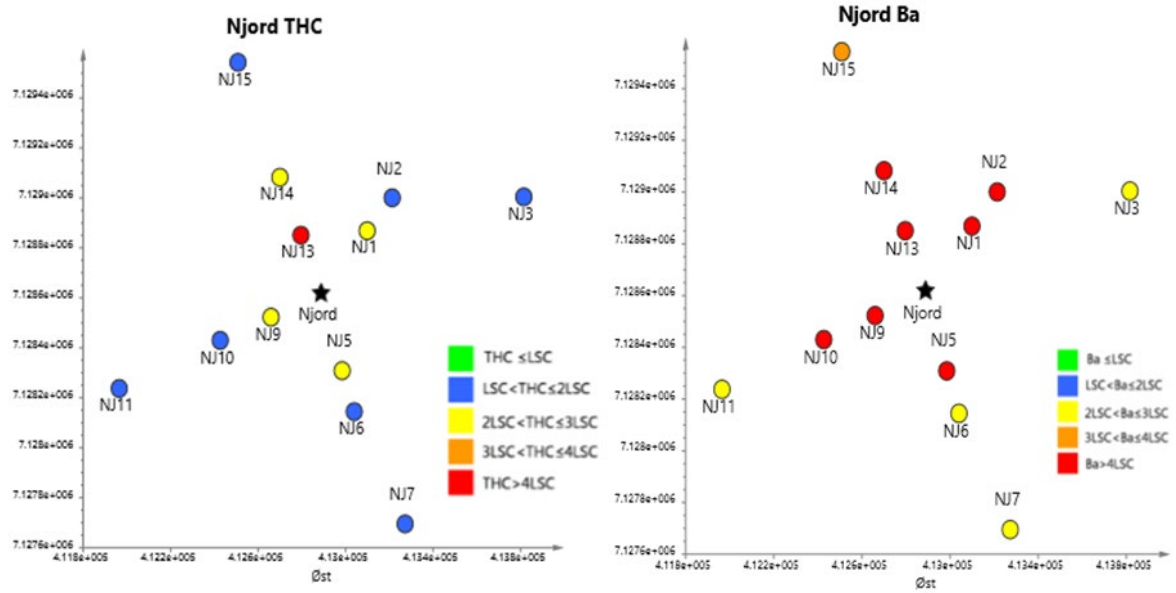
Tabell 3-7 Boreaktivitet og utslipp i senere tid ved Njord og nordvestflanken.

Njord og Nordvestflanken	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann		0,0136	
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

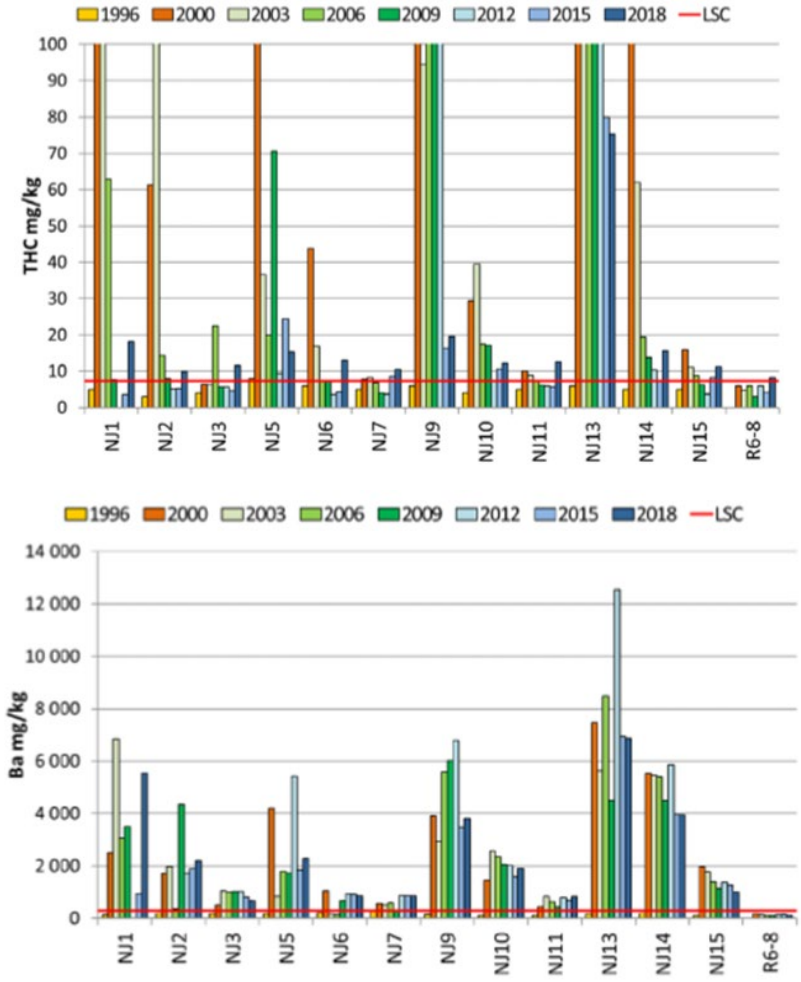
Totalt areal med sediment kontaminert med THC ved ble beregnet til mellom 3,1 km^2 (lav) og 12,6 km^2 (høy) i 2018.

Mengden av THC i sedimentet varierte fra 9,9 – 75 mg/kg i 2018, mens mengden av Ba varierte fra 666 – 6871 mg/kg. Faunaen ble vurdert å være forstyrret på en stasjon 250 m nord av sentrum (NJ13) og areal med forstyrret fauna ble beregnet til 0,3 km^2.

Utbredelsen av THC og Ba i sedimentet på Njord i 2015 er illustrert i Figur 3-9, tidsutvikling for THC og Ba er vist i Figur 3-10.



Figur 3-9 THC (venstre) og barium (høyre) i sediment på Njord og nordvestflanken i 2018**.**



Figur 3-10 Konsentrasjonen av THC (øverst) og Ba (nederst) på Njord over tid.

På bakgrunn av resultatene i 2018 foreslås følgende:

Njord

0-90° transekt: Tre stasjoner ble undersøkt i 2018, stasjon NJ1-3. Alle stasjonene var kontaminert med LSC. Det foreslås å beholde de samme stasjonene i 2021. Det er foreslått å legge til en stasjon for å avgrense kontamineringen i transektet (stasjon NJ4). Fauna ble ikke undersøkt i 2018 så det er lagt til faunanalyser på innerste stasjon i 2021.

90-180° transekt: Tre stasjoner ble undersøkt i 2018, stasjon NJ5-7. Alle stasjonene var kontaminert med LSC. Det foreslås å beholde de samme stasjonene i 2021. Det er foreslått å legge til en stasjon for å avgrense kontamineringen i transektet (stasjon NJ8). Foreslår å beholde fauna på innerste stasjon.

180-270° transekt: Tre stasjoner ble undersøkt i 2018, stasjon NJ9-11. Alle stasjonene var kontaminert med LSC. Det foreslås å beholde de samme stasjonene i 2021. I tråd med veilederen er analyser for NPD/PAH på stasjonene beholdt (to innerste stasjoner antatt nedstrøms). Det er foreslått å legge til en stasjon for å avgrense kontamineringen i transektet (stasjon NJ12). Foreslår å beholde fauna på innerste stasjon.

270-360° transekt: Tre stasjoner ble undersøkt i 2018, stasjon NJ13-15. Alle stasjonene var kontaminert med LSC. Det foreslås å beholde de samme stasjonene i 2021. Det er foreslått å legge til en stasjon for å avgrense kontamineringen i transektet (stasjon NJ16). Foreslår å beholde fauna på innerste stasjon samt å innkludere faunaanalyser på stasjon NJ14 for å avgrense området med fortstyrret fauna.

Det referes også til konklusjonene i overvåkingsrapporten for 2018 (DNV GL 2018):

«Det forurensede området under Njord A ble undersøkt i 2018 og basert på resultatene ble områdets utstrekning utvidet (Equinor 2019). En anbefaling i rapporten fra undersøkelsen er at for å kunne dokumentere spredning og nedbrytnings-dynamikken for det aktuelle området, anbefales det at også området mellom det mest kontaminerte arealet og de innerste stasjonene som benyttes i regional sedimentovervåking, følges opp med prøvetaking i årene framover. Dette gjelder også for området øst for brønnene. På grunn av plasseringen til fleksible stigerør, er adkomst på østsiden vanskelig. Prøvetaking av sediment må derfor i områder der det er mulig, gjennomføres ved hjelp av ROV»

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 er det ikke behov for en ROV undersøkelse.

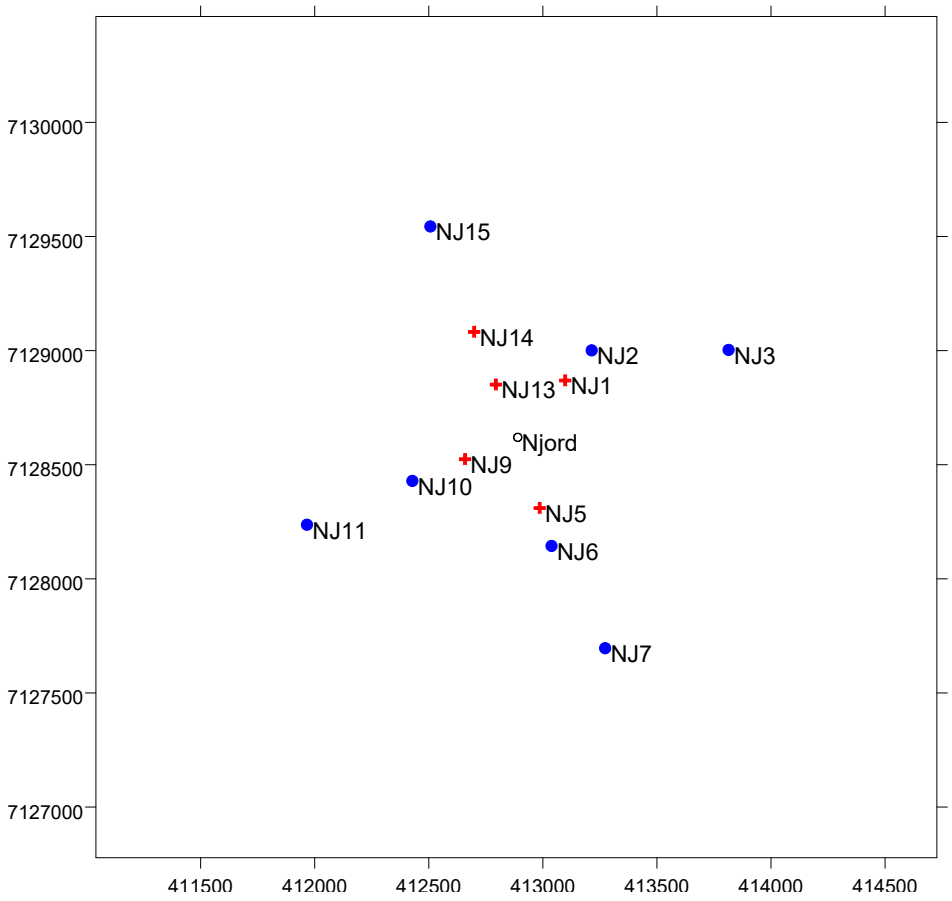
Nordvestflanken :Nordvestflanken ble ikke undersøkt i 2018 da ingen THC verdier var >LSC i 2015 samt at det ikke hadde vært utslipp på feltet.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 er det ikke behov for å undersøke nordvestflanken. Det er heller ikke behov for å inkludere 2000 m stasjonene.

Posisjonene og analyseprogram for stasjonene som er med i 2018 er vist i Tabell 3-8 og Figur 3-11. Generelt foreslås det i å analysere for NPD og PAH på stasjoner hvor THC er 50 mg/kg eller mer.

Tabell 3-8 Stasjonsposisjoner og antall analyser på Njord og Nordvestflanken, 2021 (ED50 UTM sone 32).

St. nr.	Ret.	Avst:	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Njord Sentrum	**-**	**-**	**-**	**412890**	**7128620**						
NJ1	30	325	332	413098	7128869	Bio/Kjemi	5	1	3	3	
NJ2	45	500	331	413214	7129001	Kjemi			3	3	
NJ3	67,5	1000	327	413814	7129003	Kjemi			3	3	
NJ5	157,5	325	326	412986	7128310	Bio/kjemi	5	1	3	3	
NJ6	157,5	500	329	413038	7128144	Kjemi			3	3	
NJ7	157,5	1000	326	413273	7127696	Kjemi			3	3	
NJ9	247,5	250	330	412659	7128524	Bio/kjemi	5	1	3	3	3
NJ10	247,5	500	326	412428	7128429	Kjemi			3	3	3
NJ11	247,5	1000	329	411966	7128237	Kjemi			3	3	
NJ13	337,5	250	330	412794	7128851	Bio/kjemi	5	1	3	3	
NJ14	337,5	500	331	412699	7129082	Bio/kjemi	5	1	3	3	
NJ15	337,5	1000	331	412507	7129544	Kjemi			3	3	
Sum							**25**	**5**	**36**	**36**	**6**
Ant stasjoner							**5**	**5**	**12**	**12**	**2**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											



Figur 3-11 Stasjonskart for Njord, 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.5 Norne

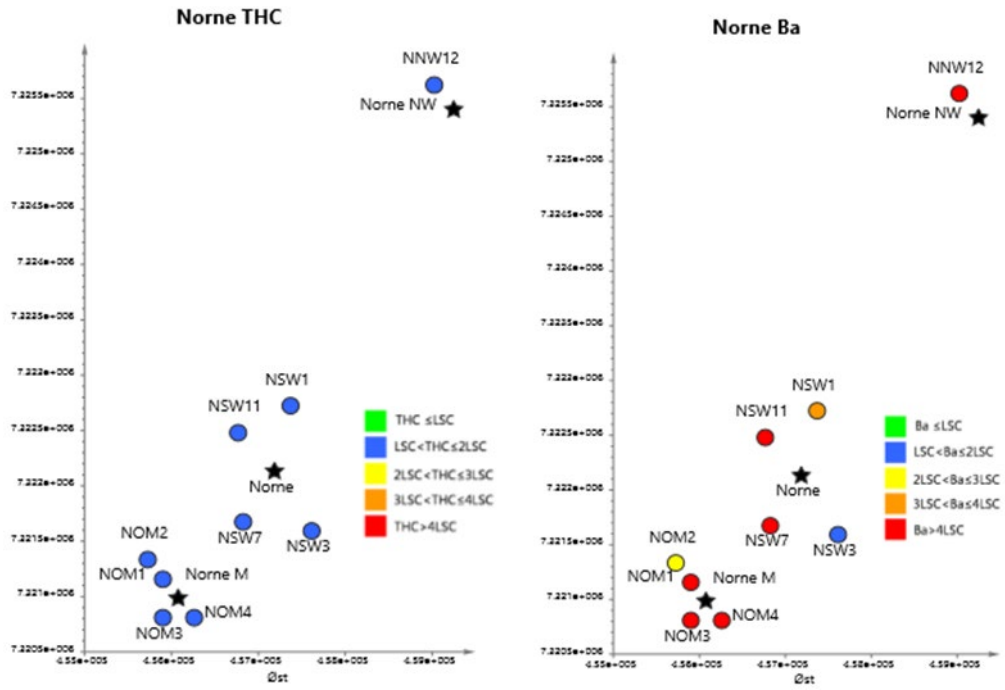
Equinor er operatør på Norne der produksjonen startet i 1997. Norne ligger i blokk 6608/10 og 6608/11 i den nordlige delen av regionen. Feltet består av et produksjons- og lagerskip tilknyttet seks bunnrammer (fire i sør og to i nord) gjennom fleksible stigerør. Gass fra feltet transporteres i rør til kontinentet via Kårstø.

Opplysninger om boring og utslipp på feltet er vist i Tabell 3-9.

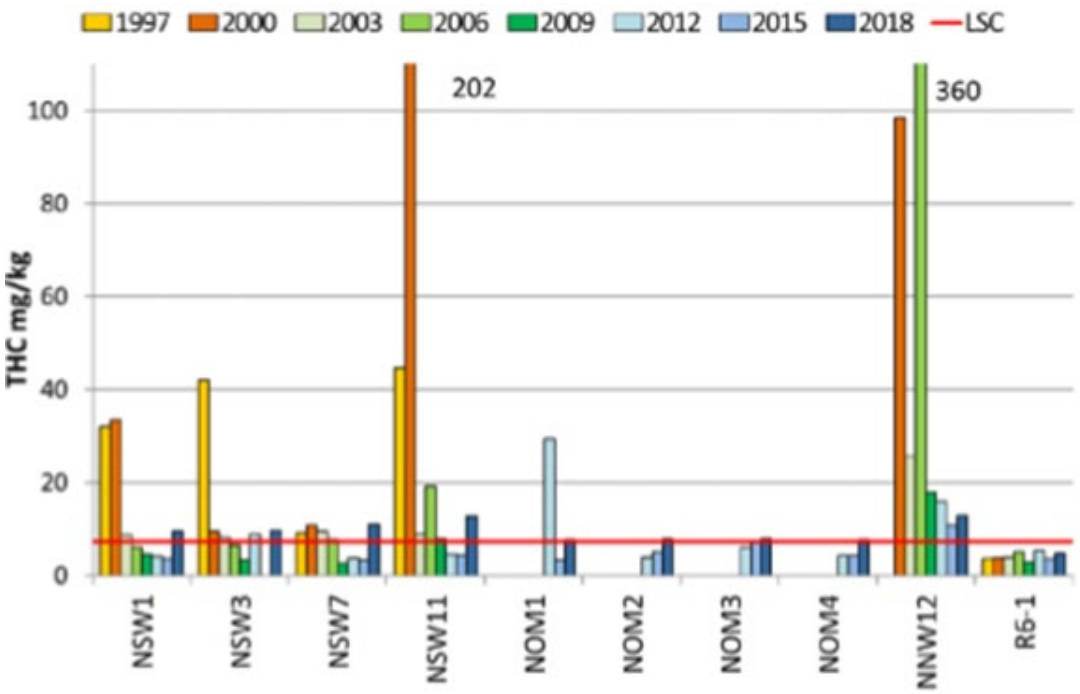
Tabell 3-9 Boreaktivitet og utslipp i senere tid ved Norne.

Norne	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	1	1
Utslipp (tonn)			
Baritt	0	218	0
Borekaks	0	580.06	0
Vannbasert borevæske	0	1748.06	0
Sementeringskjemikalier	0	0.435105	5.513055
Kompletteringskjemikalier	0	632.118	325.311
Olje i produsert vann/forurenset vann	83.00931	64.55084	76.64626
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0.2	0
Andre oljeutslipp/ lekkasjer	0	0.23	0

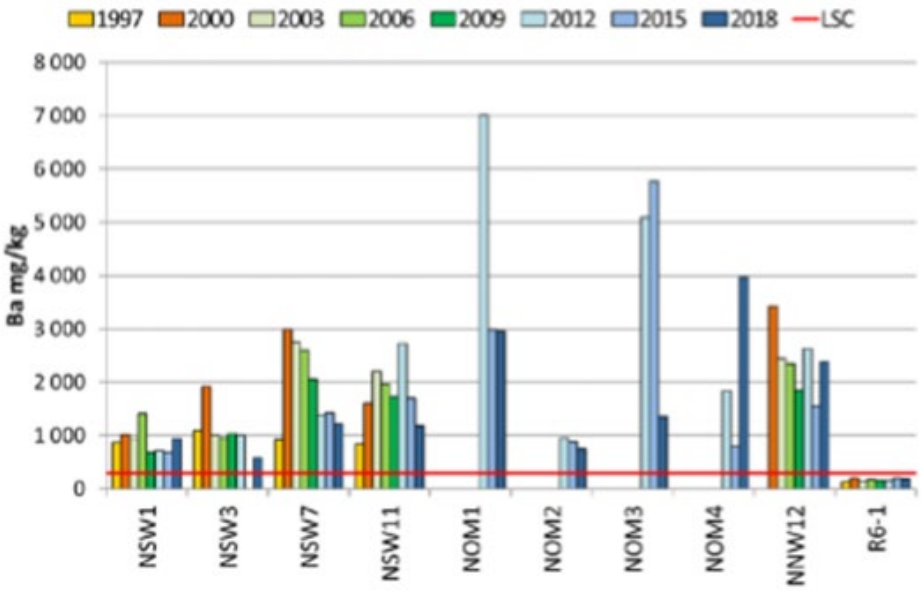
Totalt areal med sediment kontaminert med THC ved Norne ble beregnet til mellom 0,96 km^2 (lav) og 3,8 km^2. Mengden av THC i sedimentet varierte fra 4,7 – 12,9 mg/kg, mens mengden av Ba varierte fra 184 – 3967 mg/kg. Faunaen ble vurdert å være uforstyrret på den ene stasjonen undersøkt. Utbredelsen av THC og Ba i sedimentet på Norne i 2018 er illustrert i Figur 8-1, mengden THC og Ba i sedimentet over tid er vist i Figur 3-12.



Figur 3-12 THC (venstre) og barium (høyre) i sediment på Norne i 2018**.**



Figur 3-13 Konsentrasjonen av THC på Norne over tid.



Figur 3-13 fortsetter. Konsentrasjonen av Ba på Norne over tid.

Basert på resultatene i 2018 foreslås følgende:

Norne SW:

0-90° transekt: Stasjon NSW1 er prøvetatt i denne retningen og THC>LSC. Det foreslås å beholde denne stasjonen i 2021 og å legge til en stasjon utenfor for å avgrense eventuell forurensing. Stasjon NSW1 er eneste etablerte stasjon i dette transektet så da må det opprettes en ny stasjon utenfor denne, eksempelvis 15°/1000 m (NSW15).

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke 1000 m stasjonen i undersøkelsen i 2021.

90-180° transekt: Stasjon NSW3 er prøvetatt i denne retningen og THC>LSC. Det foreslås å beholdedenne stasjonen i 2021 og å legge til en stasjon utenfor for å avgrense eventuell forurensing (eksisterende stasjon NSW4).

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke 1000 m stasjonen i undersøkelsen i 2021.

180-270° transekt: Stasjon NSW7 er prøvetatt i denne retningen og THC>LSC. Det foreslås å beholdedenne stasjonen i 2021 og å legge til en stasjon utenfor for å avgrense eventuell forurensing (eksisterende stasjon NSW8).

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke 1000 m stasjonen i undersøkelsen i 2021.

270-360° transekt: Stasjon NSW11 er prøvetatt i denne retningen og THC>LSC. Det foreslås å beholde denne stasjonen i 2021 og å legge til en stasjon utenfor for å avgrense eventuell forurensing (eksisterende stasjon NSW12). Faunaen var sunn på denne stasjonene i 2018, så biologi kan utelates i 2021 så sant andre forhold som utslipp ikke tilsier at fauna bør inkluderes.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke 1000 m stasjonen i undersøkelsen i 2021.

Norne M:

0-90° transekt: Det er ikke prøvetatt i denne retningen. Det foreslås å legge til en stasjon på 250 m, eksemeplvis 45/250 m og kalle stasjonen NOM5.

90-180° transekt: Stasjon NOM4 er prøvetatt i denne retningen og THC er i størrelsorden på LSC. Realtivt høye bariumnivåer. Det foreslås å beholde denne stasjonen.

180-270° transekt: Stasjon NOM3 er prøvetatt i denne retningen og THC er i størrelsorden på LSC. Realtivt høye bariumnivåer. Det foreslås å beholde denne stasjonen.

270-360° transekt: Stasjon NOM2 og 1 er prøvetatt i denne retningen og THC er i størrelsorden på LSC. Realtivt høye bariumnivåer. Det foreslås å inkludere stasjon NOM1 i 2021. Da det ikke ble tatt faunanalyser i 2018 på Norne M er det anbefalt å ta dette på denne stasjonen i 2021 (Ikke tatt fauna siden 2012).

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke faunaanalyse i dette transektet.

Norne NW:

0-90° transekt: Transektet er ikke prøvetatt i 2018. Det foreslås å inkludere stasjon NNW1 (45°/250 m) i 2021.

90-180° transekt: Transektet er ikke prøvetatt i 2018. Det foreslås å inkludere stasjon NNW5 (135°/250 m) i 2021.

180-270° transekt: Transektet er ikke prøvetatt i 2018. Det foreslås å inkludere stasjon NNW9 (225°/500 m) i 2021.

270-360° transekt: Stasjon NNW12 ble prøvetatt i 2018 og THC>LSC. Det foreslås å inkludere samme stasjon i 2021 samt å legge til stasjon NNW13 (315°/500 m) for å eventuelt avgrense forurensingen. Da det ikke ble tatt faunanalyser i 2018 på Norne NW er det anbefalt å ta dette på stasjon NNW12 i 2021.

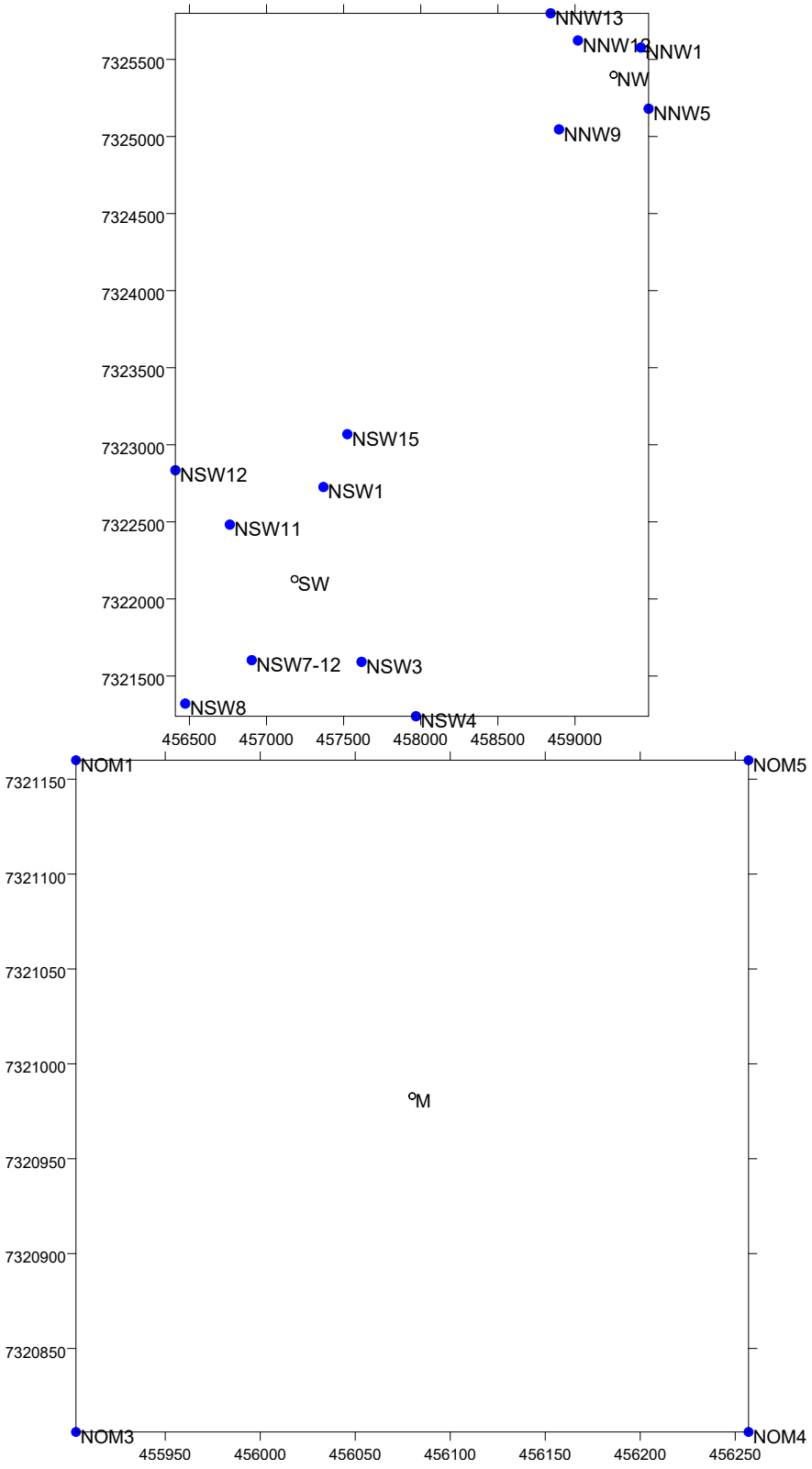
Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke faunaanalyse i dette transektet.

Posisjonene og analyseprogram for stasjonene som er med i 2018 er vist i Tabell 3-10 og Figur 3-14. Generelt foreslås det i å analysere for NPD og PAH på stasjoner hvor THC er 50 mg/kg eller mer.

Tabell 3-10 Stasjonsposisjoner og antall analyser på Norne, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met	NPD/ PAH
Sentrum	**-**	**-**	**-**	**457182**	**7322129**	**-**					
NSW1	15	723	369	457369	7322726	Kjemi			3	3	
NSW3	135	500	376	457616	7321592	Kjemi			3	3	
NSW7-12[1)]	208	594	378	456904	7321603	Kjemi			3	3	
NSW11	315	500	373	456762	7322482	Kjemi			3	3	3
Sentrum	-	-		**456080**	**7320983**	-					
NOM1	315	250	375	455903	7321160	Bio/kjemi			3	3	3
NOM2	315	500	374	455726	7321337						
NOM3	225	250	373	455903	7320806	Kjemi			3	3	
NOM4	135	250	373	456257	7320806	Kjemi			3	3	
NOM5	45	250		456257	7321160	Kjemi			3	3	
Sentrum	-	-		**459250**	**7325400**	-					
NNW12	315	250	376	459019	7325623	Bio/kjemi			3	3	3
NNW13	315	500	380	458842	7325799	Kjemi			3	3	
NNW1	45	250	380	459427	7325577	Kjemi			3	3	
NNW5	135	250		459477	7325180	Kjemi			3	3	
NNW9	225	500	387	458896	7325046				3	3	
Sum prøver							**0**	**0**	**39**	**39**	**3**
Ant stasjoner							**0**	**0**	**13**	**13**	**9**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											

1) Flyttet i 2018



Figur 3-14 Stasjonskart for Norne SW og NW (øverst) og Norne M (nederst), 2021. Røde kryss: Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.6 Heidrun og Heidrun Nord (nordflanken)

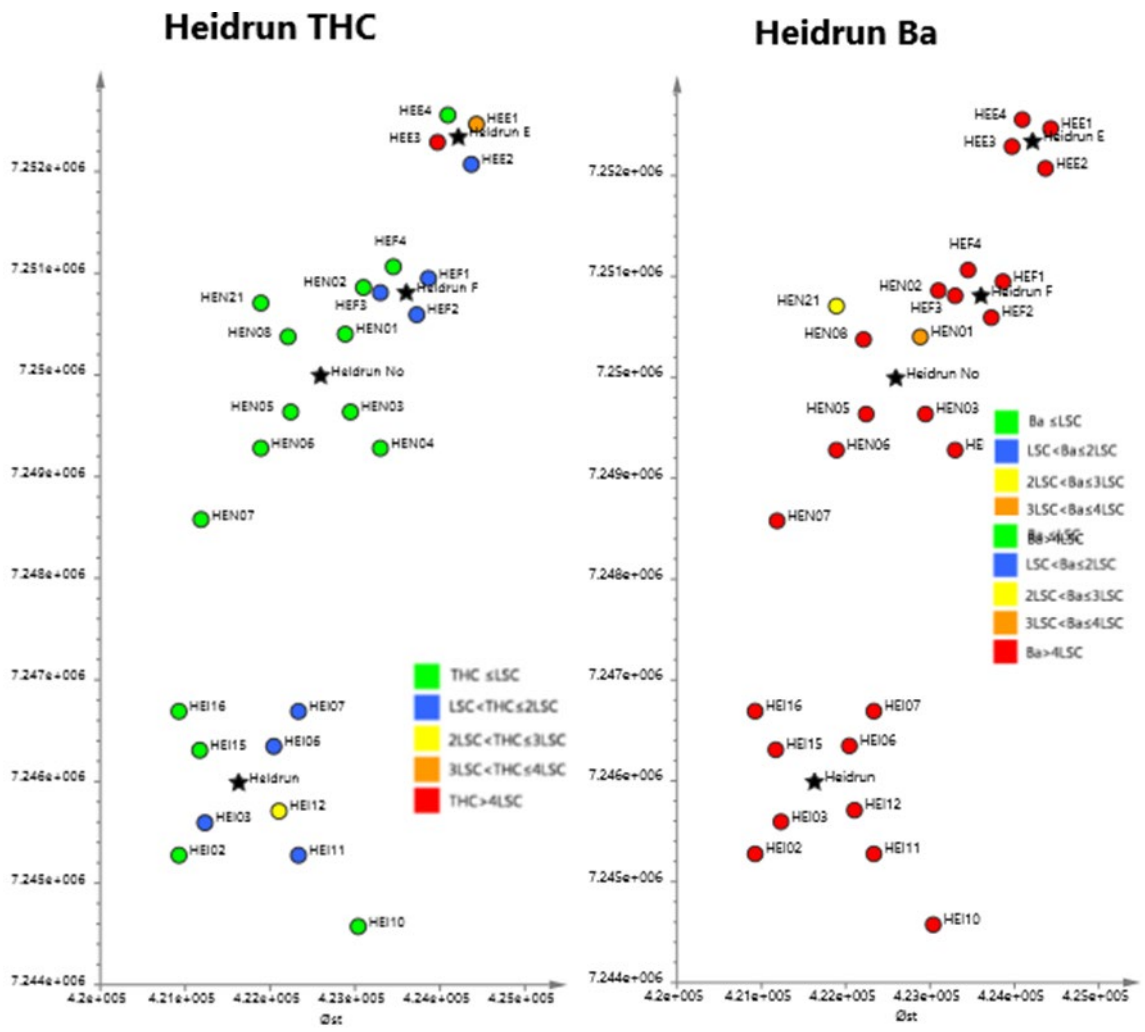
Equinor er operatør på Heidrun der produksjonen startet i 1995, mens den på Nordflanken startet i 2000. Heidrun og Nordflanken ligger i blokk 6507 i den midtre delen av regionen. Feltet er bygget ut med en flytende strekkstagplattform i betong over en bunnramme med 56 brønnslisser. Oljen fra feltet blir overført til tankskip og fraktet til Mongstad og Storbritannia, mens gassen føres i rør til Tjeldbergodden og Kårstø.

Tabell 3-11 Boreaktivitet og utslipp i senere tid ved Heidrun og nordflanken.

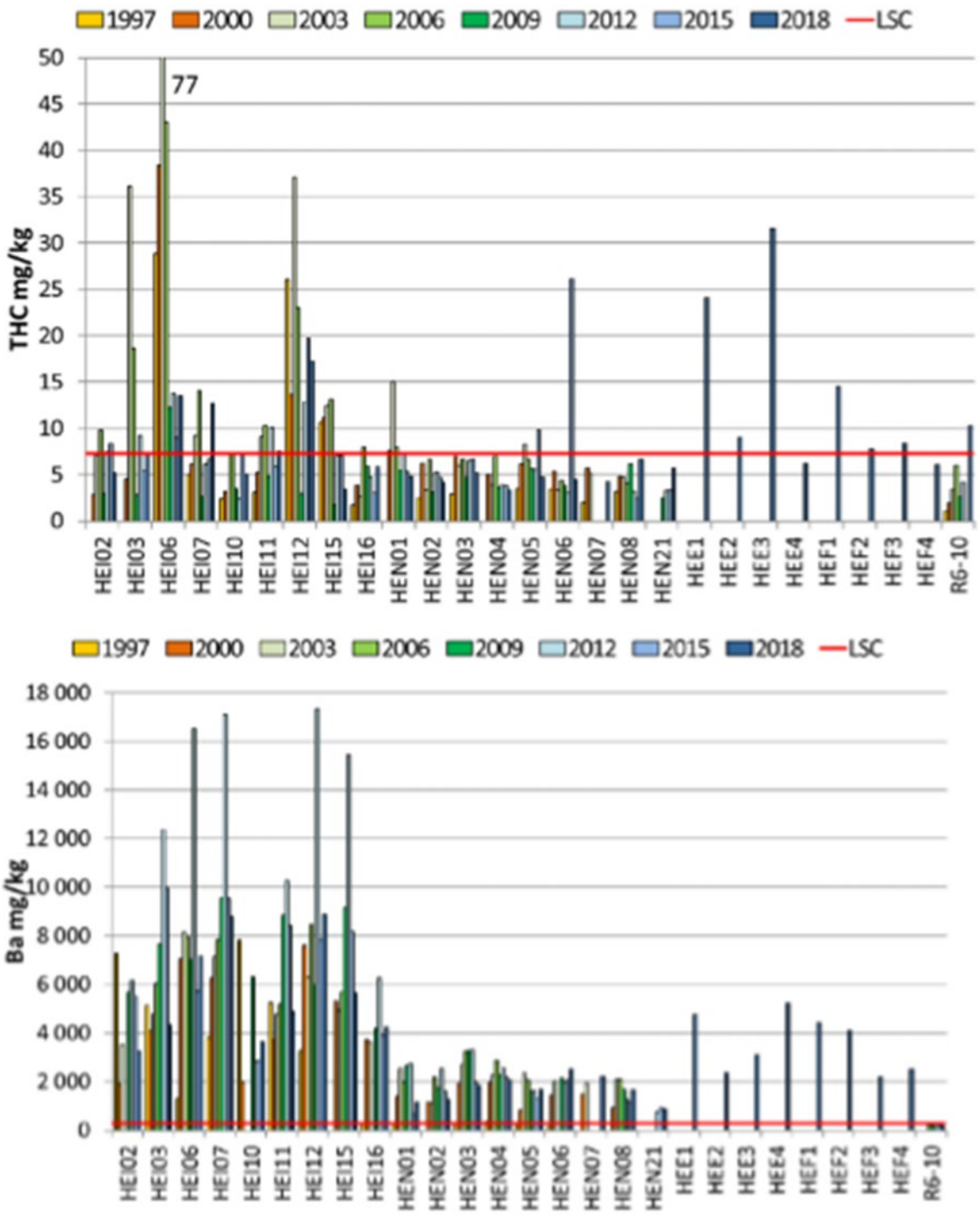
Heidrun	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	9	10	5
Utslipp (tonn)			
Baritt	735.2406	2053.719	910.7101
Borekaks	2488.958	2763.01	1943.04
Vannbasert borevæske	2816.95	3362.69	2632.536
Sementeringskjemikalier	22.467	43.91664	58.54809
Kompletteringskjemikalier	3451.127	4223.152	2503.766
Olje i produsert vann/forurenset vann	8.470293	4.779934	12.07049
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	336.6
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Totalt areal med sediment kontaminert med THC ved Heidrun med Nordflanken ble beregnet tilmellom 4 km^2 (lav) og 6 km^2 (høy) som er lavere sammenliknet med 2015. Mengden av THC i sedimentet varierte fra 3,2 – 31,5 mg/kg, mens mengden av Ba varierte fra 868 - 8861 mg/kg. Faunaen ble vurdert å være uforstyrret på de undersøkte stasjonene.

Utbredelsen av THC i sedimentet på Heidrun og Nordflanken i 2018 er illustrert i Figur 3-15, mengde THC og Ba i sedimentet over tid er vist i Figur 3-16.



Figur 3-15 THC (venstre) og barium (høyre) i sediment på Heidrun i 2018**.**



Figur 3-16 Konsentrasjonen av THC (øverst) og Ba (nederst)på Heidrun over tid.

THC >LSC på 5 av 9 stasjoner rundt Heidrun samt på de fleste undersøkte stasjonene rundt Heidrun E og F. Rund Heidrun nord er det ikke funnet THC > LSC. De høyeste konsentrasjonene er funnet rundt Heidrun E, som ikke er undersøkt tidligere. Bariumkonsentrasjonene er relativt høye på hele feltet.

Det er generelt små endringer i THC på feltet, der det er undersøkt tidligere, men beregnet kontaminert areal er lavere i 2018 sammenliknet med 2015.

Basert på resultatene fra 2018 foreslås følgende:

Heidrun

0-90° transekt: Stasjon HEI06 og 07 ble prøvetatt i 2018 og THC>LSC. Det foreslås å videreføre programmet fra 2018 men å legge til stasjon HEI08 (45°/1500 m) for å avgrense eventuell forurensing.

90-180° transekt: Stasjon HEI10-12 ble undersøkt i 2018. På HEI10 var THC<LSC og på stasjon 11 omtrent på LSC. Det foreslås derfor å utelate stasjon HEI10 i 2021 og beholde resterende program og stasjoner som i 2018.

180-270° transekt: Stasjon HEI2 og 3 ble prøvetatt i 2018. På stasjon 2 var THC<LSC og på stasjon 3 var THC omtrent på LSC. Det foresåls å utelate stasjon HEI2 i 2021 og beholde stasjon HEI3.

270-360° transekt: Stasjon HEI15 og 16 ble prøvetatt i 2018 og THC<LSC på begge stasjonene. Det foresåls å utelate stasjon HEI16 i 2021 og beholde stasjon HEI15.

Heidrun D (tidligere kalt Heidrun nord): På Heidrun nord forelås det også å redusere programmet ved å bare undersøke de innerste stasjonene og bare ta kjemiprøver.

0-90° transekt: THC<LSC på de to undersøkte stasjonene HEN01 og 2. Det foreslås å utelate stasjon HEN2 i 2021 og å beholde stasjon HEN01.

90-180° transekt: THC<LSC på de to undersøkte stasjonene HEN03 og 4. Det foreslås å utelate stasjon HEN04 i 2021 og å beholde stasjon HEN03.

180-270° transekt: THC<LSC på de tre undersøkte stasjonene HEN05 til HEN07. Det foreslås å utelate stasjon HEN06 og HEN07 i 2021 og å beholde stasjon HEN05.

270-360° transekt: THC<LSC på de to undersøkte stasjonene HEN08 og HEN21. Det foreslås å utelate stasjon HEN21 i 2021 og å beholde stasjon HEN08.

Heidrun E:

0-90° transekt: Stasjon HEE1 var THC>LSC i 2018. Det foreslås å legge til en ny stasjon HEE5 (60°/500 m) utenfor for å avgrense eventuell forurensing.

90-180° transekt: Stasjon HEE2 var THC>LSC i 2018. Det foreslås å legge til en ny stasjon HEE6 (150°/500 m) utenfor for å avgrense eventuell forurensing.

180-270° transekt: Stasjon HEE3 var THC>LSC i 2018. Det foreslås å legge til en ny stasjon HEE7 (260°/500 m) utenfor for å avgrense eventuell forurensing.

270-360° transekt: Stasjon HEE4 var THC<LSC i 2018 så det foreslås å bare beholde denne stasjonen i 2021.

Heidrun F:

0-90° transekt: Stasjon HEF1 var THC>LSC i 2018. Det foreslås å legge til en ny stasjon HEF5 (60°/500 m) utenfor for å avgrense eventuell forurensing.

90-180° transekt: Stasjon HEF2 var THC i størrelsesorden LSC så det foreslås å beholde samme program i dette transektet i 2021.

180-270° transekt: Stasjon HEF3 var THC i størrelsesorden LSC så det foreslås å beholde samme program i dette transektet i 2021.

270-360° transekt: Stasjon HEF2 var THC<LSC så det foreslås å beholde samme program i dette transektet i 2021.

Det skal analyseres på NPD/PAH i tillegg på stasjoner hvor THC > 50 mg/kg.

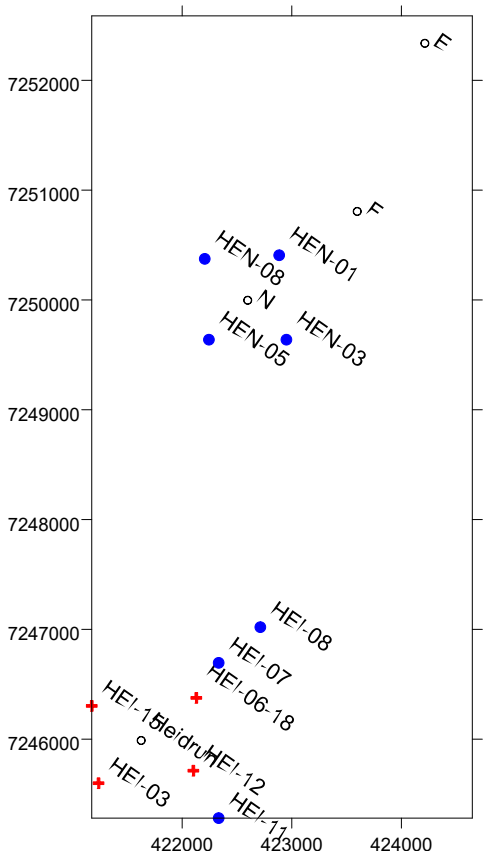
Posisjonene og analyseprogram for stasjonene som er med i 2018 er vist i Tabell 3-12 og Figur 3-17.

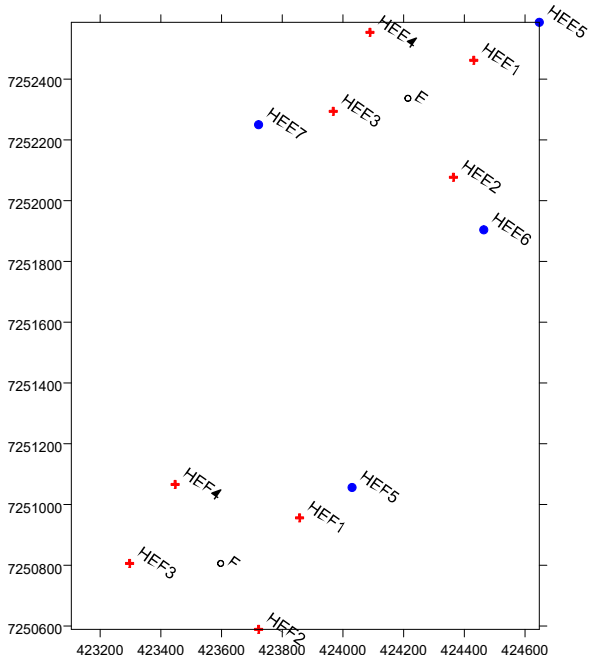
Tabell 3-12 Stasjonsposisjoner og antall analyser på Heidrun og Nordflanken, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/PAH
Heidrun	**-**	**-**	**-**	**421626**	**7245988**	**-**					
HEI-02	225	1 000	344	420919	7245281						
HEI-03	225	550	342	421237	7245599	Bio/kjemi	5	1	3	3	
HEI-06-18[1)]	52	635	346	422129	7246376	Bio/kjemi	5	1	3	3	3
HEI-07	45	1 000	353	422333	7246695	Kjemi			3	3	
HEI-08	45	1500	351	422713	7247020	Kjemi			3	3	
HEI-10	135	2 000	342	423040	7244574						
HEI-11	135	1 000	342	422333	7245281	Kjemi			3	3	
HEI-12	120	550	344	422102	7245713	Bio/kjemi	5	1	3	3	
HEI-15	305	550	346	421175	7246303	Bio/kjemi	5	1	3	3	
HEI-16	315	1 000	350	420919	7246695						
Heidrun D	**-**	**-**		**422598**	**7249997**	-					
HEN-01	35	500	356	422885	7250407	Kjemi			3	3	
HEN-02	30	1000	359	423098	7250863	Kjemi					
HEN-03	135	500	353	422951	7249638	Kjemi			3	3	
HEN-04	135	1000	351	423304	7249284	Kjemi					
HEN-05	225	500	357	422244	7249638	Kjemi			3	3	
HEN-06	225	1000	341	421890	7249284						
HEN-07	225	2000	333	421183	7248577						
HEN-08	315	500	375	422206	7250374	Kjemi			3	3	
HEN-21	315	1000	370	421891	7250704	Kjemi					
Heidrun E	**-**	**-**		**424214**	**7252337**	-					
HEE1	60	250		424431	7252462	Bio/kjemi	5	1	3	3	3
HEE5	60	500		424647	7252587	Kjemi			3	3	
HEE2	150	300		424364	7252077	Bio/kjemi	5	1	3	3	
HEE6	150	500		424464	7251904	Kjemi			3	3	

HEE3	260	250		423968	7252294	Bio/kjemi	5	1	3	3	3
HEE7	260	500		423722	7252250	Kjemi			3	3	
HEE4	330	250		424089	7252554	Bio/kjemi	5	1	3	3	
Heidrun F	**-**	**-**		**423597**	**7250806**	-					
HEF1	60	300		423857	7250956	Bio/kjemi	5	1	3	3	3
HEF5	60	500		424030	7251056	Kjemi			3	3	
HEF2	150	250		423722	7250589	Bio/kjemi	5	1	3	3	
HEF3	260	300		423297	7250806	Bio/kjemi	5	1	3	3	
HEF4	330	300		423447	7251066	Bio/kjemi	5	1	3	3	
Sum							**60**	**12**	**69**	**69**	**12**
Ant stasjoner							**12**	**12**	**23**	**23**	**4**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											

1) Flyttet i 2018.





Figur 3-17 Stasjonskart for Heidrun og Heidrun nord (øverst) og detaljer rund E og F rammen (nederst) 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.7 Åsgard

Equinor er operatør på Åsgard der produksjon startet i 1999. Åsgard, som består av Midgard, Smørbukk og Smørbukk Sør, ligger i blokk 6406 og 6407 i den midtre delen av regionen. Feltet er bygget ut med et produksjons- og lagerskip, Åsgard A, og en halv nedsenkbar plattform, Åsgard B, som behandler gass og kondensat. Til gassenteret er det tilknyttet et lagerskip for kondensat, Åsgard C. Olje og kondensat blir fraktet til land med tankskip, mens gassen føres i rør til Kårstø.

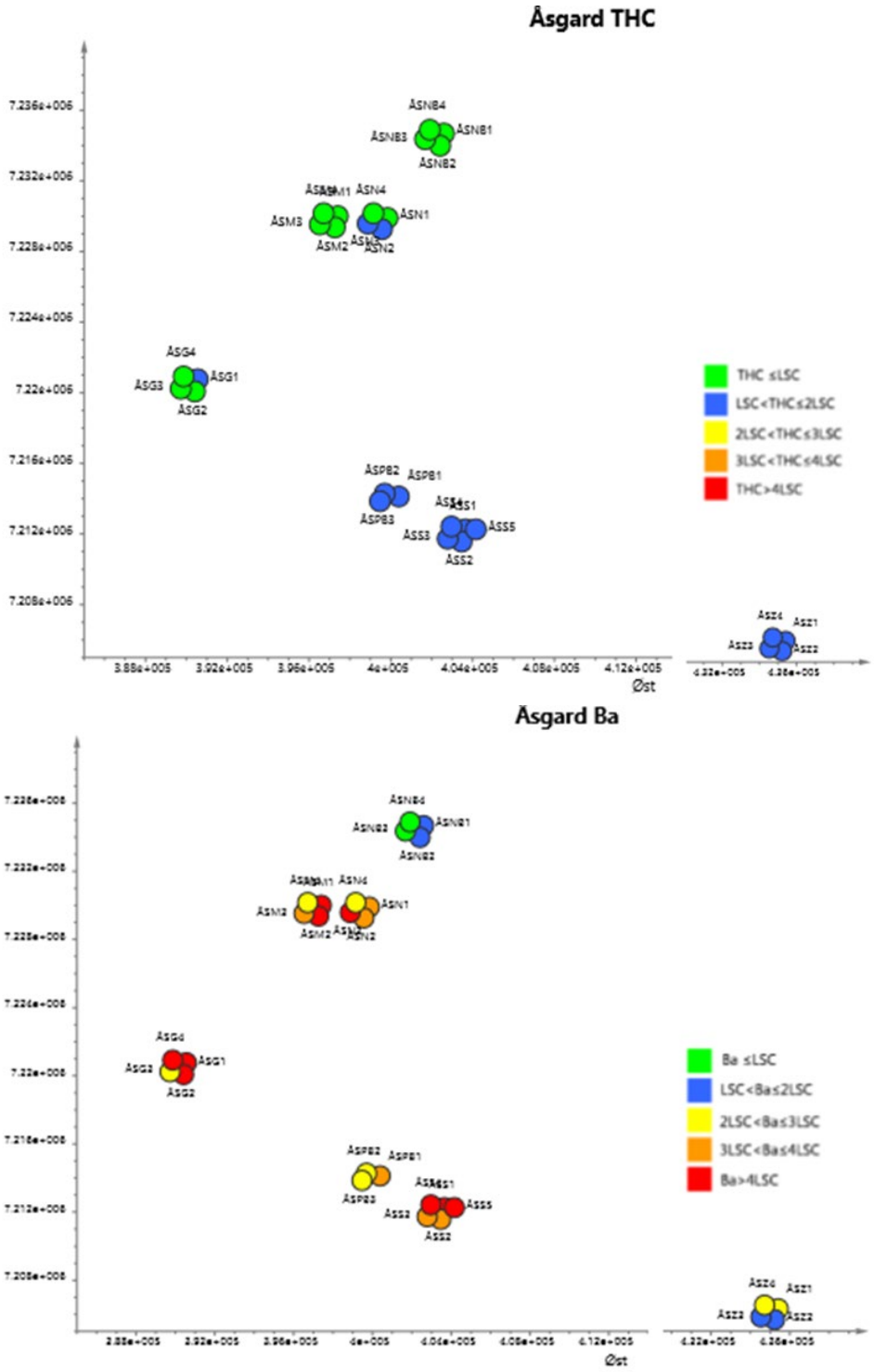
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-13.

Tabell 3-13 Boreaktivitet og utslipp i senere tid ved Åsgard.

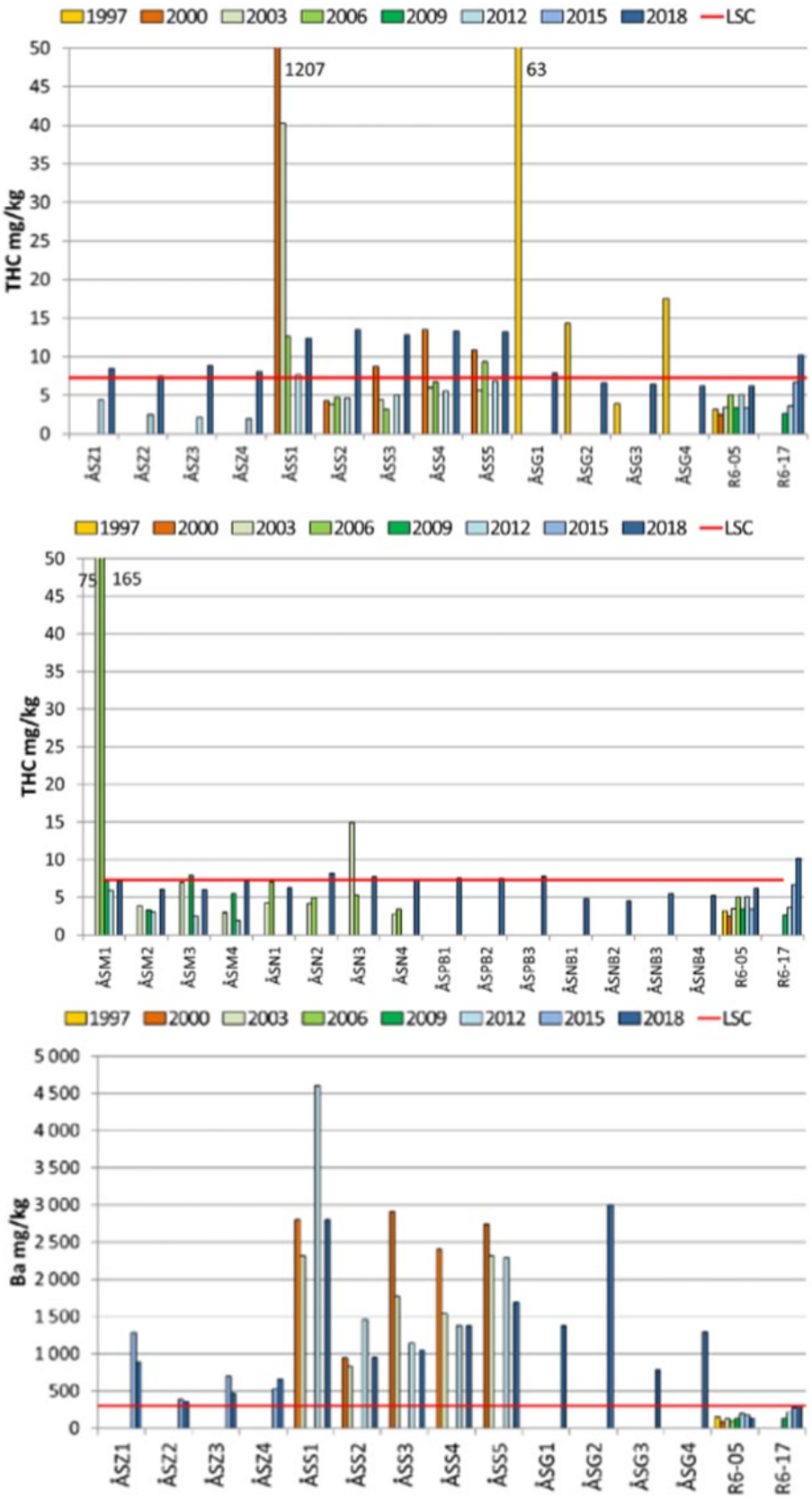
Åsgard	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	9	10	5
Utslipp (tonn)			
Baritt	930.861	132.778	0
Borekaks	4882.764	671.33	0
Vannbasert borevæske	6634.47	1333.014	0
Sementeringskjemikalier	189.7958	10.57242	2.793525
Kompletteringskjemikalier	1329.578	2385.103	2129.457
Olje i produsert vann/forurenset vann	10.25229	13.61531	14.42172
Uhellsutslipp (m^3)			
Vannbasert borevæske			
Oljebasert borevæske		0.111	0.02
Andre oljeutslipp/ lekkasjer	25.89	0.006	0.3042

I 2018 ble det undersøkt rundt 7 rammer (G, PB, S, Z, N, M, og NB). Sedimentene på rammene M og NB var ikke kontaminert. På de andre rammene varierte kontaminert areal mellom 0,8 km^2 og 4,7 km^2 og var størst rund ramme S. Mengden av THC i sedimentet varierte fra 4,5 – 13,5 mg/kg, mens mengden av Ba varierte fra 214 - 2997 mg/kg. Faunaen ble vurdert å være uforstyrret på alle stasjonene.

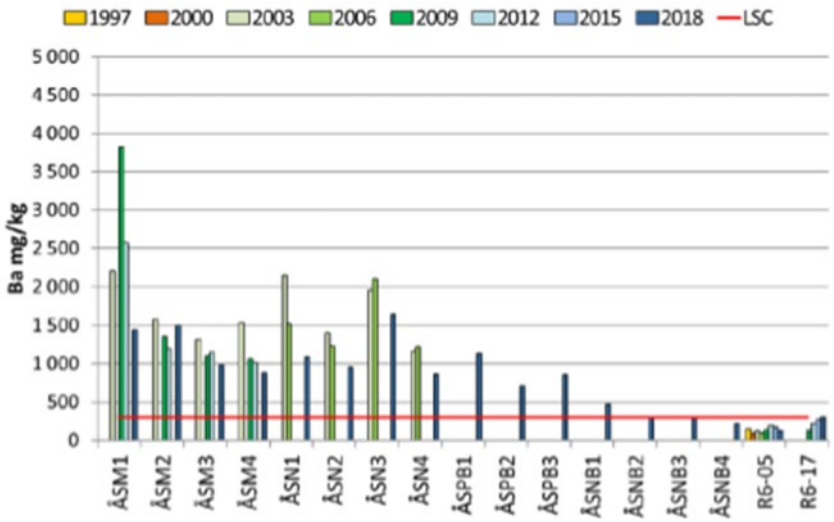
Utbredelsen av THC og Ba i sedimentet på Åsgard i 2018 er illustrert i Figur 3-18 og tidsutviklingen i sediment er vist i Figur 3-19.



Figur 3-18 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Åsgard, 2018.



Figur 3-19 Konsentrasjonene av THC (2 øverste) og Ba i sediment (nederst), Åsgard 2018.



Figur 3-19 fortsetter. Konsentrasjonen av Ba på Åsgard over tid.

Templatene NB og M:

Templatene var ikke kontaminert med THC i 2018 og foreslås utelatt i 2021.

Templat G:

THC> LSC på 1 av 4 stasjoner. Undersøkelsen forut for undersøkelsen i 2018 ble gjennomført i 1997. Det er ingen økning i THC sammenliknet med 1997. Faunane på stasjon ÅSG1 er vurdert som uforstyrret. Templatet foreslås utelatt i undersøkelsen i 2021.

Templat N:

Ved templat N er THC > LSC på 2 av 4 stasjoner (marginalt over LSC) og på nivå med tidligere undersøkelser. Faunane på stasjon ÅSN1 er vurdert som uforstyrret. Det foreslås å utelate templatet i undersøkelsen i 2021.

Templat PB:

Ved templat PB er THC på nivå med LSC på de undersøkte stasjonene. Faunane på stasjon ÅSPB1 er vurdert som uforstyrret. Det foreslås å utelate templatet i undersøkelsen i 2021.

Templat Z:

0-90° transekt: Stasjon ÅSZ1 var THC i samme størrelsesorden som THC i 2018. Samme stasjon beholdes i 2021.

90-180° transekt: Stasjon ÅSZ2 var THC i samme størrelsesorden som THC i 2018. Samme stasjon beholdes i 2021.

180-270° transekt: Stasjon ÅSZ3 var THC i samme størrelsesorden som THC i 2018. Samme stasjon beholdes i 2021.

270-360° transekt: Stasjon ÅSZ4 var THC i samme størrelsesorden som THC i 2018. Samme stasjon beholdes i 2021.

Templat S:

0-90° transekt: På de undersøkte stasjonene ÅSS1 og ÅSS5 var THC>LSC. Det foreslås å legge til en ny stasjon ÅSS11 (75°/1500 m) for å avgrense eventuell forurensing. Faunanalyser kan utgå på stasjon ÅSS1 da den var vurdert som uforstyrret i 2021 og det er relativt lave THC nivåer.

90-180° transekt: På stasjon ÅSS2 var THC>LSC i 2018. Det foreslås å legge til eksisterende stasjon ÅSS7 (240°/1000 m) for å avgrense eventuell forurensing i 2021.

180-270° transekt: På stasjon ÅSS3 var THC>LSC i 2018. Det foreslås å legge til eksisterende stasjon ÅSS7 (240°/1000 m) for å avgrense eventuell forurensing i 2021.

270-360° transekt: På stasjon ÅSS4 var THC>LSC i 2018. Det foreslås å legge til eksisterende stasjon ÅSS8 (330°/1000 m) for å avgrense eventuell forurensing i 2021.

Det er flere templater på Åsgard hvor det i 2021 er 6 eller flere år siden forrige undersøkelse, en oversikt er vist i Tabell 3-14.

Tabell 3-14 Tempater på Åsgard og når forrige undersøkelse ble gjennomført. Templater uthevet i bold er de som minimum anbefales inkludert i overvåkingen i 2021.

Templat	År siste undersøkelse[1)]
E	**1996**
F	2015
H	2015
I	**2009**
J	**2009**
K	2015
L	**2000**
P	2015
Q	2015
R	**2009**
X	**2003**
Y	2015

1) Basert på data i MOD databasen.

Det foreslås å minimum inkludere de templatene som sist er undersøk før 2015 i undersøkelsen i 2021. En helhetsvurdering av omfanget av hele programmet samt utslippsdata med mere bør legges til grunn om

eventuelt flere templater skal inkluderes.Eventuelle korallforekomster bør avklares med Equinor på forhånd.

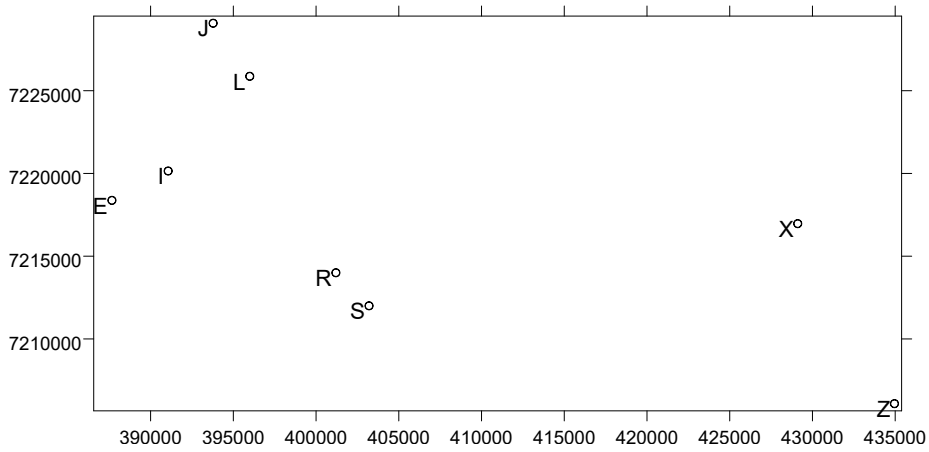
Posisjoner og analyseprogram for stasjonene i 2021 er vist i Tabell 3-15 og Figur 3-20. Analyser av PAH/NPD utføres også på stasjoner som eventuelt viser seg å ha mer enn 50 mg/kg THC i sedimentet.

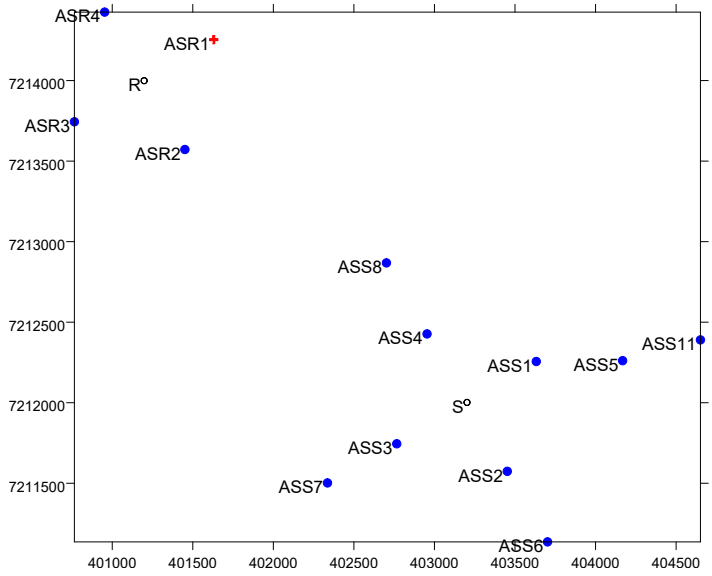
Nullpunkt og prøvetakingslokaliteter for Åsgard E er trolig flyttet sammenliknet med undersøkelsen i 1996, overvåkingsstasjonene er derfor også flyttet i 2021 i forhold til nullpunkt.

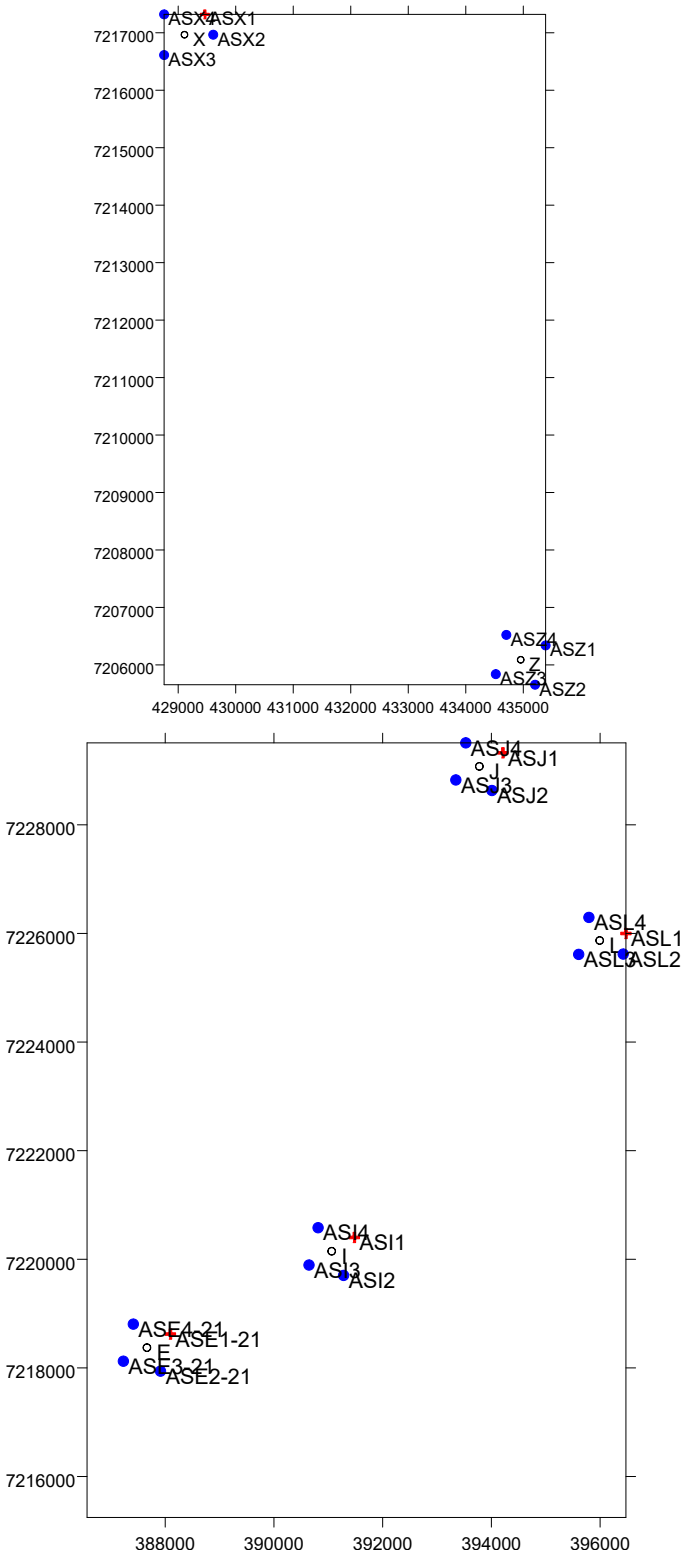
Tabell 3-15 Stasjonsposisjoner og antall analyser på Åsgard, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/PAH
Sentrum Z	-	-	-	**434955**	**7206089**						
ÅSZ1	60	500	239	435388	7206339	Kjemi			3	3	
ÅSZ2	150	500	240	435205	7205655	Kjemi			3	3	
ÅSZ3	240	500	245	434522	7205839	Kjemi			3	3	
ÅSZ4	330	500	240	434705	7206522	Kjemi			3	3	
Sentrum S				403202	7212002						
ÅSS1	60	500	300	403632	7212256	Kjemi			3	3	
ÅSS2	150	500	300	403452	7211574	Kjemi			3	3	
ÅSS6	150	1000	300	403702	7211136	Kjemi			3	3	
ÅSS3	240	500	300	402766	7211745	Kjemi			3	3	
ÅSS7	240	1000	300	402336	7211502	Kjemi			3	3	
ÅSS4	330	500	300	402954	7212427	Kjemi			3	3	
ÅSS8	330	1000	305	402702	7212868	Kjemi			3	3	
ÅSS5	75	1000	295	404168	7212261	Kjemi			3	3	
ÅSS11	75	1500		404651	7212390	Kjemi			3	3	
Sentrum G				**390126**	**7220506**						
ÅSG1	60	500	285	390559	7220756						
ÅSG2	150	500	285	390392	7220076						
ÅSG3	240	500	290	389709	7220250						
ÅSG4	330	500	284	389883	7220926						
Sentrum M				**396981**	**7229760**						
ÅSM1	60	500	376	397413	7230010						
ÅSM2	145	500	276	397267	7229350						
ÅSM3	240	501	278	396546	7229510						
ÅSM4	325	500	270	396693	7230170						
Sentrum N				**399352**	**7229731**						
ÅSN1	70	500	272	399822	7229902						
ÅSN2	155	500	268	399563	7229278						
ÅSN3	256	500	277	398867	7229610						
ÅSN4	335	500	278	399141	7230184						
Sentrum PB				399967	7213856						
ÅSPB1	60	500		400400	7214106						
ÅSPB2	330	500		399717	7214289						

ÅSPB3	260	500		399467	7213856						
Sentrum NB				402171	7234442						
ÅSNB1	60	500		400400	7214106						
ÅSNB2	150	500		400217	7213423						
ÅSNB3	260	500		399467	7213856						
ÅSNB4	330	500		399717	7214289						
Sentrum E				-	-						
ÅSE1-21	60	500	305	388096	7218623	Kjemi/Bio	5	1	3	3	3
ÅSE2-21	150	500	305	387913	7217940	Kjemi			3	3	
ÅSE3-21	240	500	310	387230	7218123	Kjemi			3	3	
ÅSE4-21	330	500	310	387413	7218806	Kjemi			3	3	
Sentrum I				**391062**	**7220148**						
ÅSI1	60	500	290	391479	7220402	Kjemi/Bio	5	1	3	3	3
ÅSI2	150	500	300	391281	7219703	Kjemi			3	3	
ÅSI3	240	500	290	390645	7219894	Kjemi			3	3	
ÅSI4	330	500	290	390812	7220581	Kjemi			3	3	
Sentrum J				**393779**	**7229076**						
ÅSJ1	60	500	255	394212	7229326	Kjemi/Bio	5	1	3	3	3
ÅSJ2	150	500	270	394010	7228632	Kjemi			3	3	
ÅSJ3	240	500	265	393346	7228826	Kjemi			3	3	
ÅSJ4	330	500	254	393529	7229509	Kjemi			3	3	
Sentrum L				395992	7225870						
ÅSL1	60	500	284	396475	7225999	Kjemi/Bio	5	1	3	3	3
ÅSL2	150	500	283	396425	7225620	Kjemi			3	3	
ÅSL3	240	500	290	395606	7225614	Kjemi			3	3	
ÅSL4	330	500	285	395794	7226295	Kjemi			3	3	
Sentrum R				**401198**	**72113999**						
ÅSR1	60	500	300	401630	7214254	Kjemi/Bio	5	1	3	3	3
ÅSR2	150	500	308	401451	7213572	Kjemi			3	3	
ÅSR3	240	500	308	400765	7213744	Kjemi			3	3	
ÅSR4	330	500	305	400953	7214425	Kjemi			3	3	
Sentrum X				**429109**	**7216966**						
ÅSX1	45	500	299	429463	7217320	Kjemi/Bio	5	1	3	3	3
ÅSX2	90	500	301	429609	7216966	Kjemi			3	3	
ÅSX3	225	500	301	428755	7216612	Kjemi			3	3	
ÅSX4	315	500	292	428755	7217320	Kjemi			3	3	
Sum							**30**	**6**	**111**	**111**	**18**
Ant. stasjoner							**6**	**6**	**37**	**37**	**6**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											


Jº
Lº
Iº
Eº
Rº
Sº
Xº
Zº
7225000
7220000
7215000
7210000
390000
395000
400000
405000
410000
415000
420000
425000
430000
435000


ASR4
ASR1
Rº
ASR3
ASR2
ASS8
ASS4
ASS1
ASS5
ASS11
Sº
ASS3
ASS2
ASS7
ASS6
7214000
7213500
7213000
7212500
7212000
7211500
401000
401500
402000
402500
403000
403500
404000
404500



Figur 3-20 Oversikt over rammen på Åsagard (øverst), stasjonsoversikt på Åsgard S og R (nest øverst), Åsgard X og Z samt resterende prøvetakingstasjoner på Åsgard (E, I, L og S), 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.8 Urd

Equinor er operatør på Urd der produksjon startet i 2005 og ligger i blokk 6608 i den nordlige delen av regionen. Urd består av oljeforekomstene Stær og Svale og er tilknyttet produksjonsskipet på Norne med rørledninger. Oljen blir viderebehandlet på Norne, mens gassen sendes i rør til Kårstø.

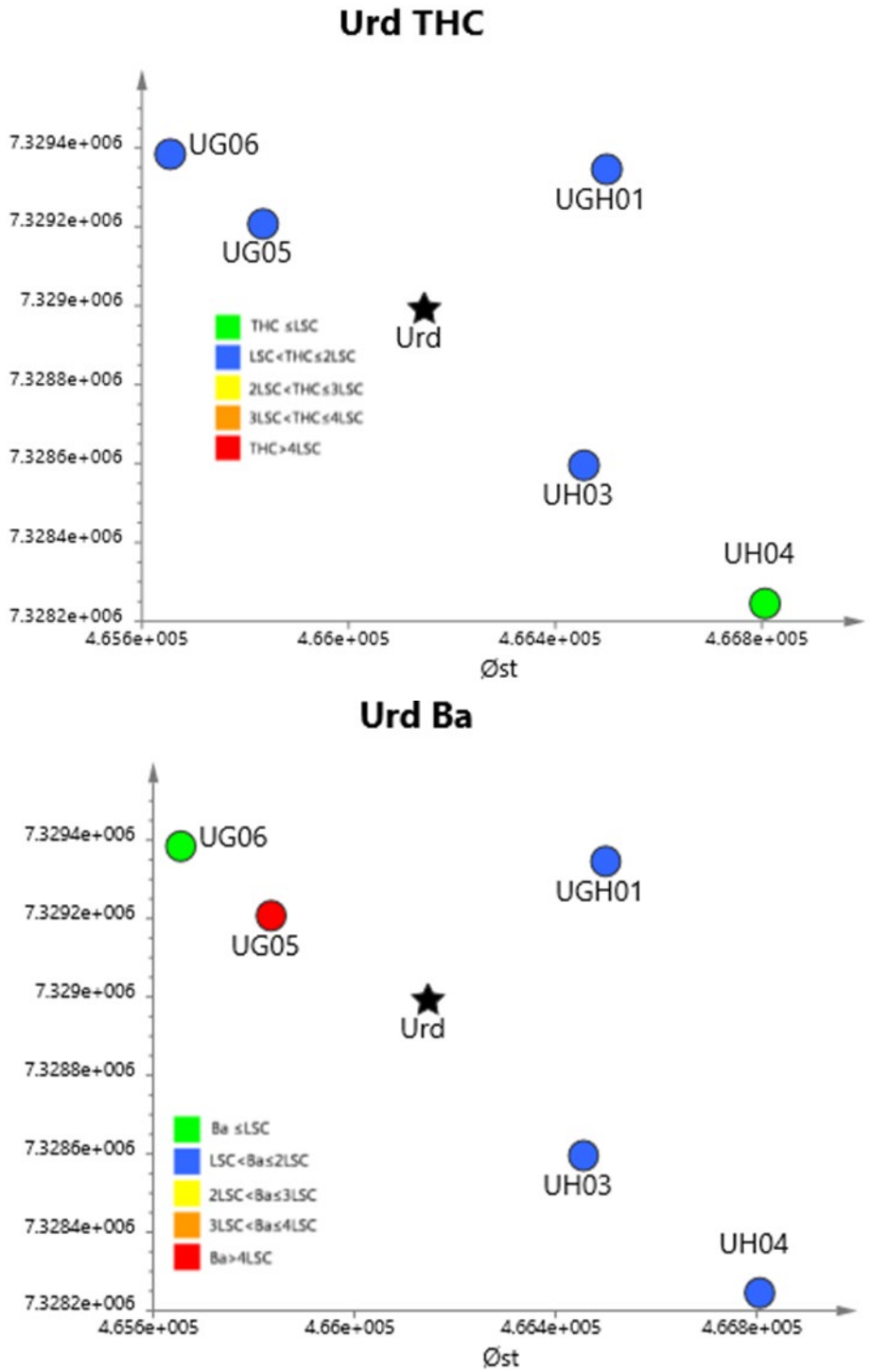
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-16.

Tabell 3-16 Boreaktivitet og utslipp i senere tid ved Urd.

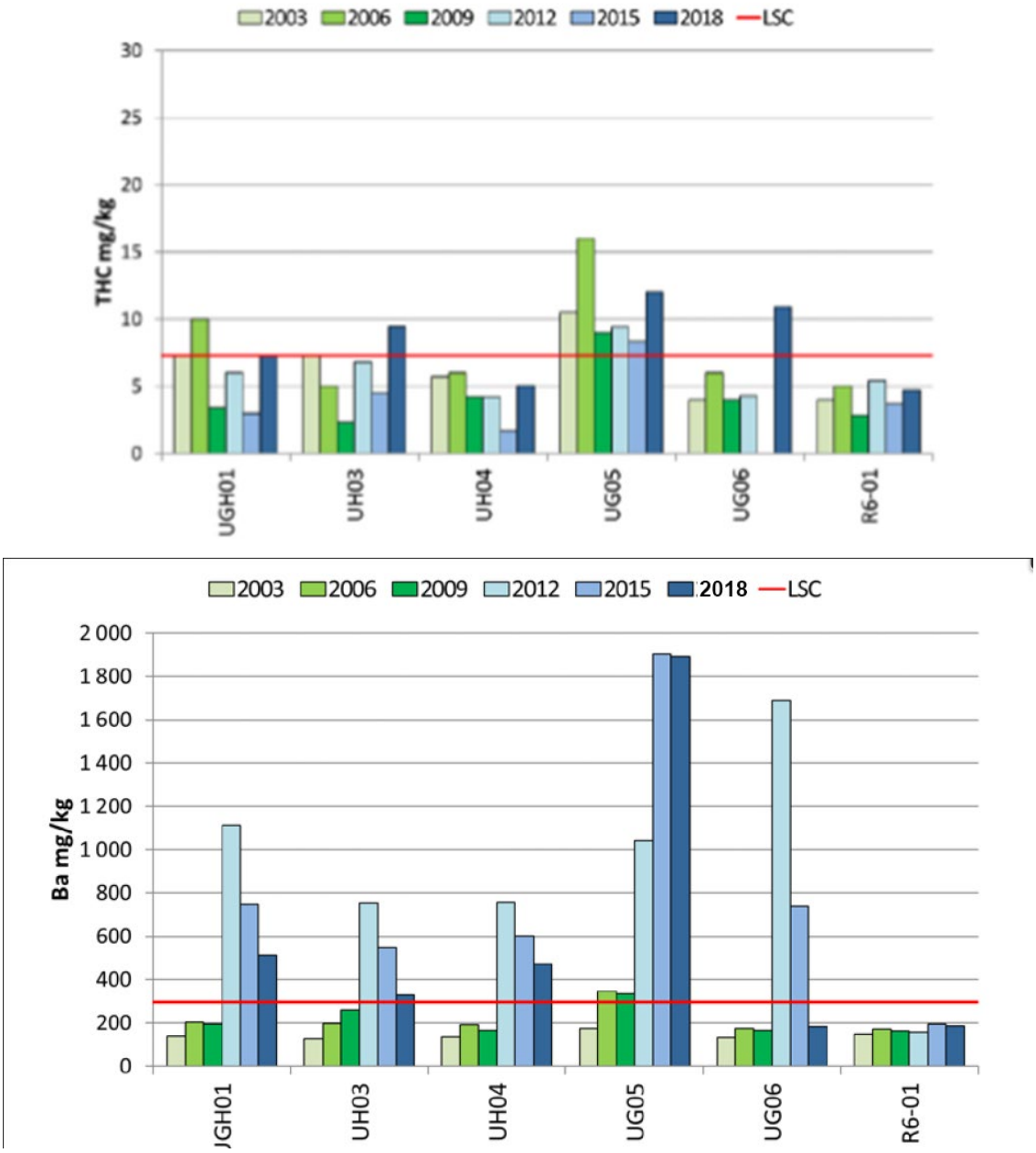
Urd	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	33.028	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	45.578	0
Olje i produsert vann/forurenset vann	0	0.00628	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Totalt areal med THC kontaminert sediment på Urd ble beregnet til mellom 1,2 (lav) og 3,1 (høy) km^2 i 2018, noe høyere sammenliknet med 2015. Mengden av THC i sedimentet varierte fra 5 – 12 mg/kg, mens mengden av Ba varierte fra 183 - 1891 mg/kg. Faunaen ble ikke undersøkt på Urd i 2018.

Utbredelsen av THC og Ba i sedimentet på Urd i 2018 er illustrert i Figur 3-21 og tidsutviklingen for THC og Ba er vist i Figur 3-22.



Figur 3-21 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Urd, 2018.



Figur 3-22 Konsentrasjonen av THC (øverst) og Ba (nederst) på Urd over tid.

På bakgrunn av resultatene i 2018 foreslås følgende:

0-90° transekt: På den undersøkte stasjonen UGH1 er THC på nivå med LSC. Foreslår å beholde denne stasjonen også i 2021.

90-180° transekt: Stasjon UH03 og 4 er undersøkt i transektet i 2018. På stasjon UH04 var THC<LSC og på stasjon UH03 var THC>LSC. Foreslår å beholde de samme stasjonene i 2021.

180-270° transekt: Det er ikke undersøkt stasjoner i dette transektet i 2021. Foreslår å legge til en ny stasjon UG09 (225/250) på dette transektet i 2021.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke stasjon UG09 i undersøkelsen i 2021 (konflikt med infastruktur).

270-360° transekt: Stasjon UG05 og 06 er undersøkt i transektet i 2018 og THC>LSC på begge stasjonene. Det foreslås å legge til eksisterende stasjon UG07 (315°/1000) for å avgrenese eventuell forurensing. Det foreslås også å ta inn biologi på innerste stasjon UG05 da biologi ikke ble undersøkt på noen stasjoner i 2018.

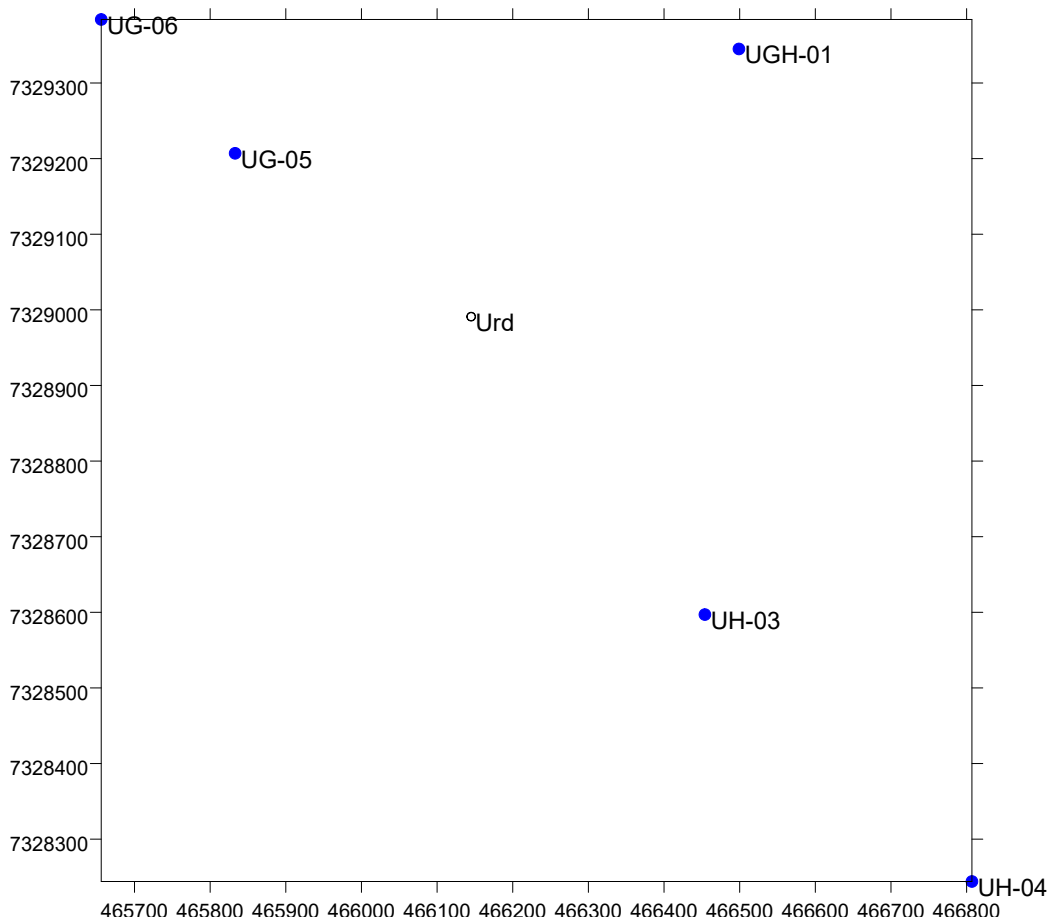
Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 inkluderes ikke biologi på stasjon UG-05 i 2021.

Analyser av PAH/NPD utføres på UG5 og UG6 og på stasjoner som eventuelt viser seg å ha mer enn 50 mg/kg THC i sedimentet.

Posisjonene og antall analyser for stasjonene som er med i 2018 er vist i Tabell 3-17 og Figur 3-23.

Tabell 3-17 Stasjonsposisjoner og antall analyser på Urd, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avs.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Sentrum	**-**	**-**	**-**	**466145**	**7328991**	**-**					
UGH-01	45	500	371	466499	7329345	Kjemi			3	3	
UH-03	135	500	374	466454	7328597	Kjemi			3	3	
UH-04	135	1000	376	466807	7328244	Kjemi			3	3	
UG-05	315	250	374	465833	7329207	Bio/kjemi			3	3	3
UG-06	315	500	375	465656	7329384	Kjemi			3	3	3
Sum									**15**	**15**	**6**
Ant stasjoner									**5**	**5**	**2**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											



Figur 3-23 Stasjonskart for Urd, 2021. Blå sirkler:Kjemistasjoner.

3.9 Tyrihans

Equinor er operatør på Tyrihans der produksjon startet i 2008. Tyrihans, som består av Tyrihans Nord og Sør, ligger i blokk 6406 og 6407 i den midtre delen av regionen. Tyrihans er bygd ut med fem bunnrammer knyttet opp mot Kristin dit olje og gass transporteres i rør.

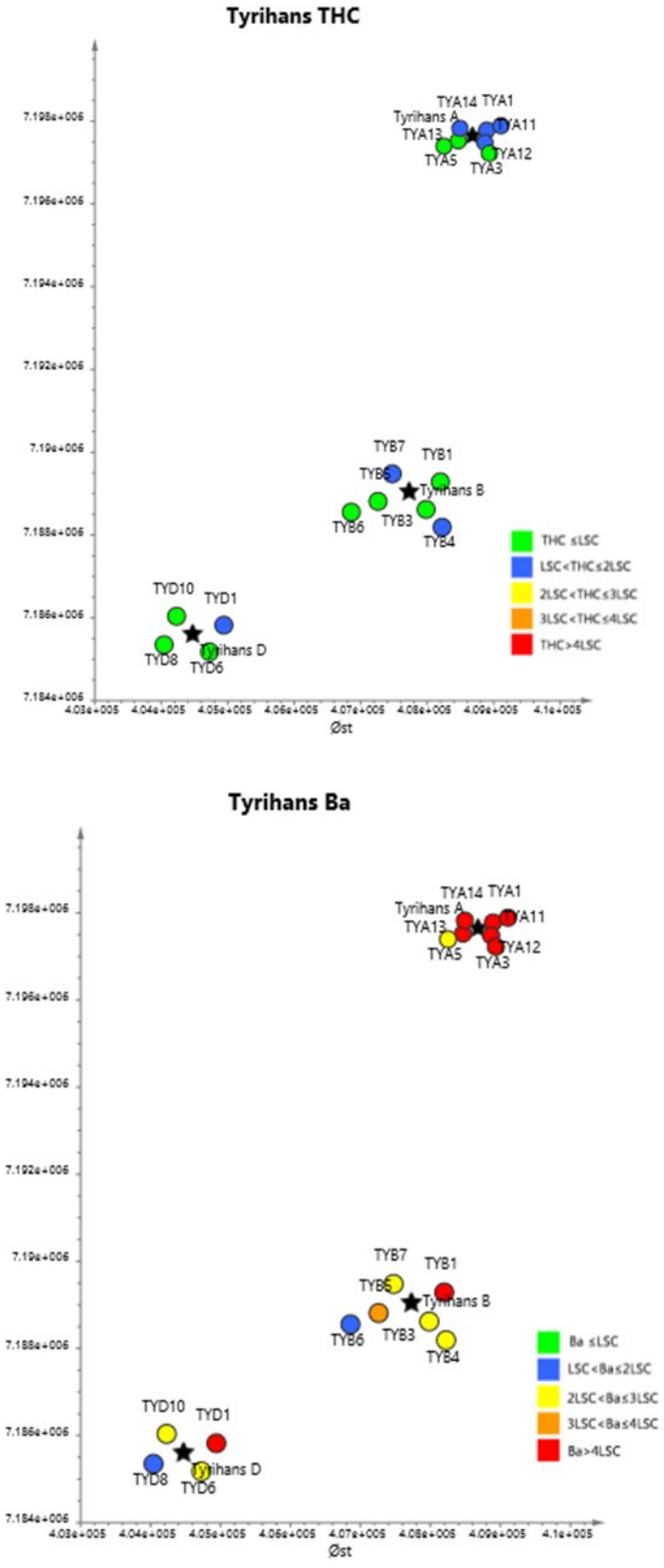
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-18.

Tabell 3-18 Boreaktivitet og utslipp i senere tid ved Tyrihans.

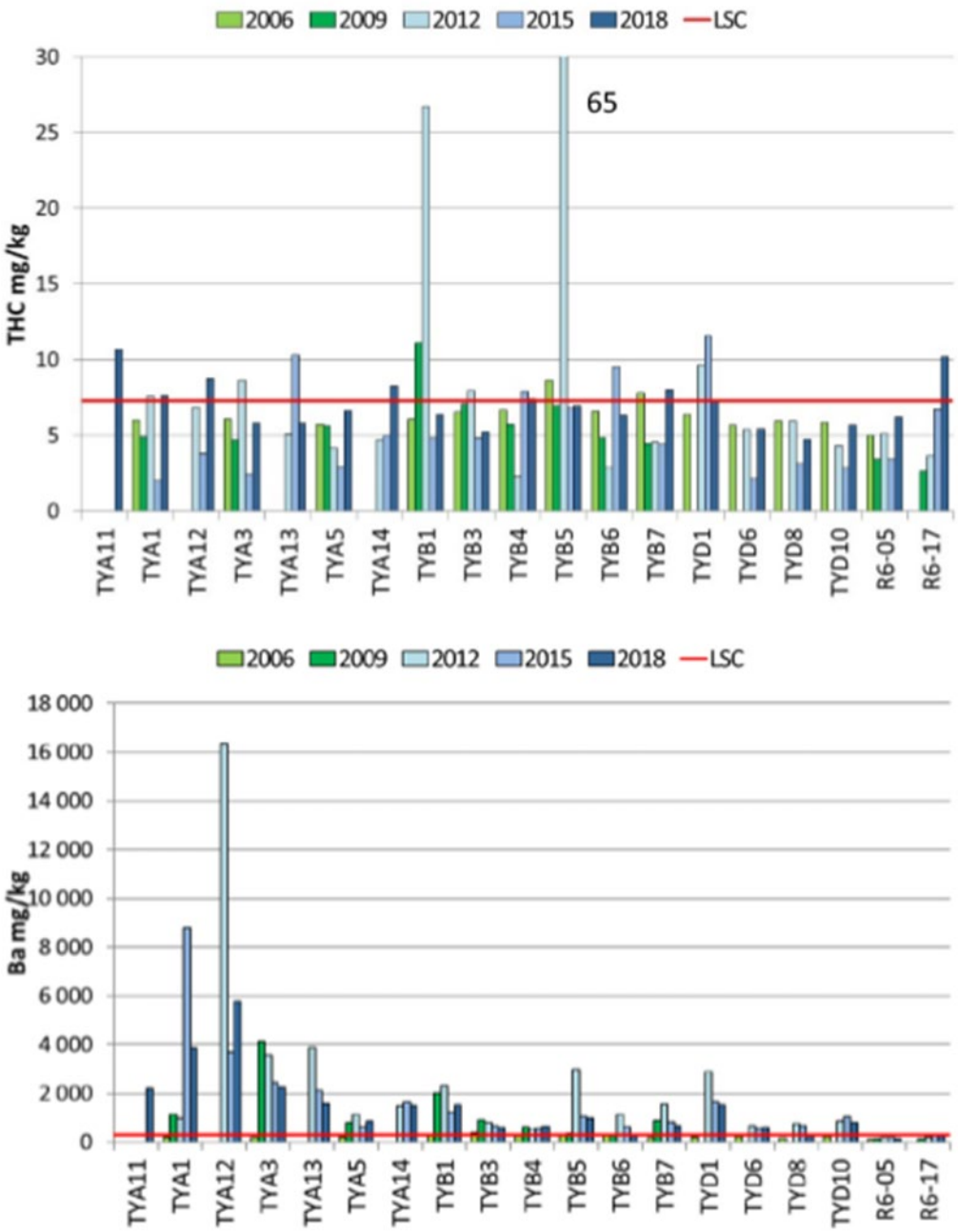
Tyrihans	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	2	0	0
Utslipp (tonn)			
Baritt	807.6457	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0.50789	0	0
Kompletteringskjemikalier		0	0
Olje i produsert vann/forurenset vann	0.01665	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Mengden av THC i sedimentet varierte fra 5– 11 mg/kg, mens mengden av Ba varierte fra 317 - 5772 mg/kg. Faunaen ble ikke analysert på Tyrihans i 2018.

Utbredelsen av THC i sedimentet på Tyrihans i 2015 er illustrert i Figur 3-24 og tidsutviklingen for THC og Ba er vist i Figur 3-25.



Figur 3-24 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Tyrihans, 2018.



Figur 3-25 Konsentrasjonen av THC (øverst) og Ba (nederst) på Tyrihans over tid.

På bakgrunn av resultaten i 2018 foreslås følgende:

Tyrihans A:

0-90° transekt: Stasjon TYA1 og 11 ble undersøkt i 2018. På stasjon TYA11 var THC>LSC og på stasjon TYA1 på nivå med LSC. Det foreslås å beholde de samme stasjonene i 2018.

90-180° transekt:. Stasjon TYA3 og 12 ble undersøkt i 2018. På stasjon TYA12 var THC>LSC og på stasjon TYA3 var THC<LSC. Det foreslås å beholde de samme stasjonene i 2018.

180-270° transekt: Stasjon TYA5 og 13 ble undersøkt i 2018 og THC<LSC på begge stasjonene. Foreslås å utelate stasjone TYA5 i 2021 og beholde innerste stasjon (TYA13).

270-360° transekt: Stasjon TYA14 ble undersøkt i transektet i 2018 og THC var på nivå med LSC. Det foreslås å beholde samme stasjon i 2021. I tillegg foreslås det å faunaprøver på denne stasjonen da ingen da det ikke ble tatt faunaprøver på noen stasjoner i 2018.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utgår biologi fra stasjon TYA14.

Tyrihans B:

På Tyrihans B er THC på nivå med LSC på 2 av 6 stasjoner og <LSC på de øvrige stasjonene. Det foreslås å utelate Tyrihans B i 2021.

Tyrihans D:

På Tyrihans D er THC på nivå med LSC på 1 stasjon og <LSC på de øvrige stasjonene. Det foreslås å utelate Tyrihans D i 2021 såfremt det ikke foreligger utslippsdata som tilsier at den bør følges opp.

Note: Equinor har konkludere med at Tyrihans B skal inkluderes da det har vært utslipp der.

Tyrihans C og W (W ble sist undersøkt i 2012) ble ikke undersøkt i 2018 og foreslås inkludert i undersøkelsen i 2021.

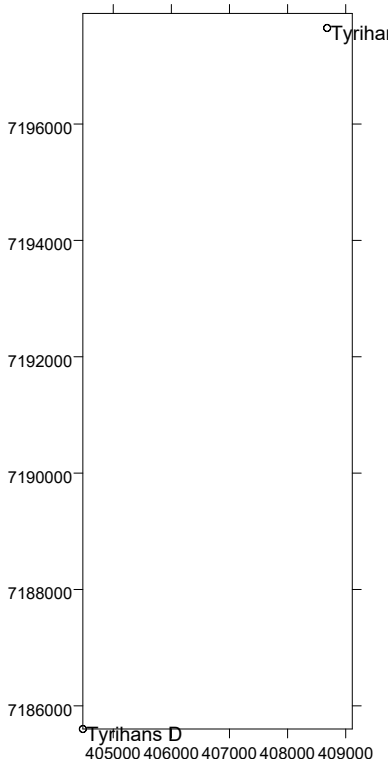
Note: ***Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 og påfølgende konklusjon fra Equinor skal Tyrihans C og W ikke inngå i årets undersøkelse.***

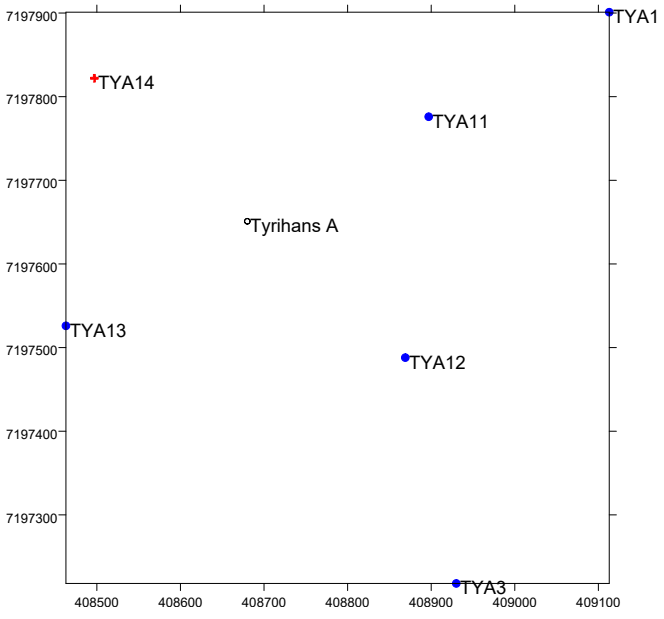
Foreslått analyseprogram for Tyrihans i 2021 er vist Tabell 3-19 og Figur 3-26.

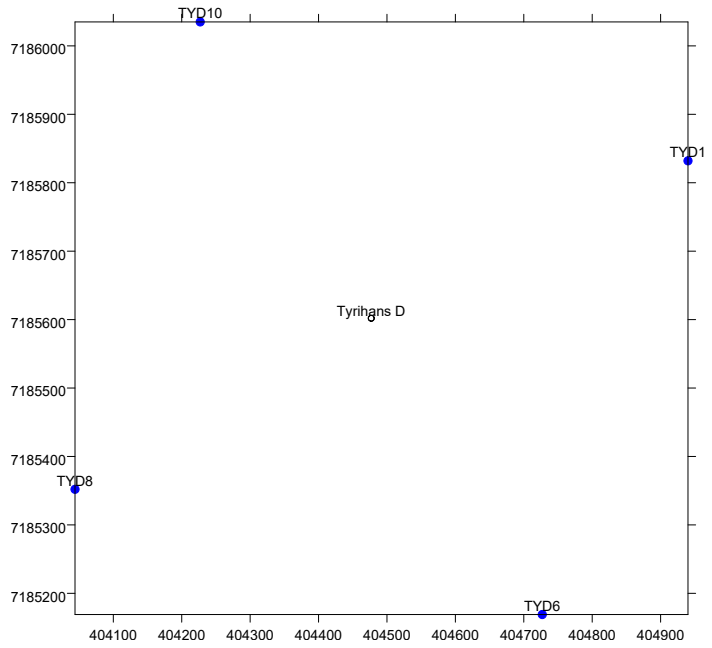
Tabell 3-19 Stasjonsposisjoner og antall analyser på Tyrihans, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Sentrum A	**-**	**-**	**-**	**408680**	**7197651**	**-**					
TYA11	60	250	286	408897	7197776	Kjemi			3	3	
TYA1	60	500	288	409113	7197901	Kjemi			3	3	
TYA12	130	250	288	408869	7197488	Kjemi			3	3	
TYA3	150	500	288	408930	7197218	Kjemi			3	3	
TYA13	240	250	288	408463	7197526	Kjemi			3	3	
TYA5	240	500	288	408247	7197401						
TYA14	313	250	298	408497	7197822	Kjemi			3	3	3
Sentrum B	**-**	**-**		**407726**	**7189054**						
TYB1	60	500	272	408189	7189284						
TYB3	150	500	270	407976	7188621						
TYB4	150	1000	270	408226	7188188						
TYB5	240	500	273	407263	7188824						
TYB6	240	1000	273	406860	7188554						
TYB7	330	500	273	407476	7189487						
Sentrum D				**404477**	**7185602**						
TYD1	60	500	267	404940	7185832	Kjemi			3	3	
TYD6	150	500	266	404727	7185169	Kjemi			3	3	

TYD8	240	500	270	404044	7185352	Kjemi			3	3	
TYD10	330	500	267	404227	7186035	Kjemi			3	3	
Sum									**30**	**30**	**3**
Ant stasjoner									**10**	**10**	**1**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Utgår											
Tas inn											







Figur 3-26. Oversikt over Tyrihans (øverst), stasjonsplassering for henholdsvis Tyrihans A og D (nederst), 2018. Blå sirkler: Kjemistasjoner.

3.10 Fossekall

Equinor er operatør i Skuld-lisensen. Lisensen, som består av feltene Fossekall (P og R-rammene) og Dompap (S-rammen), ligger ved Norne i den nordlige delen av regionen.

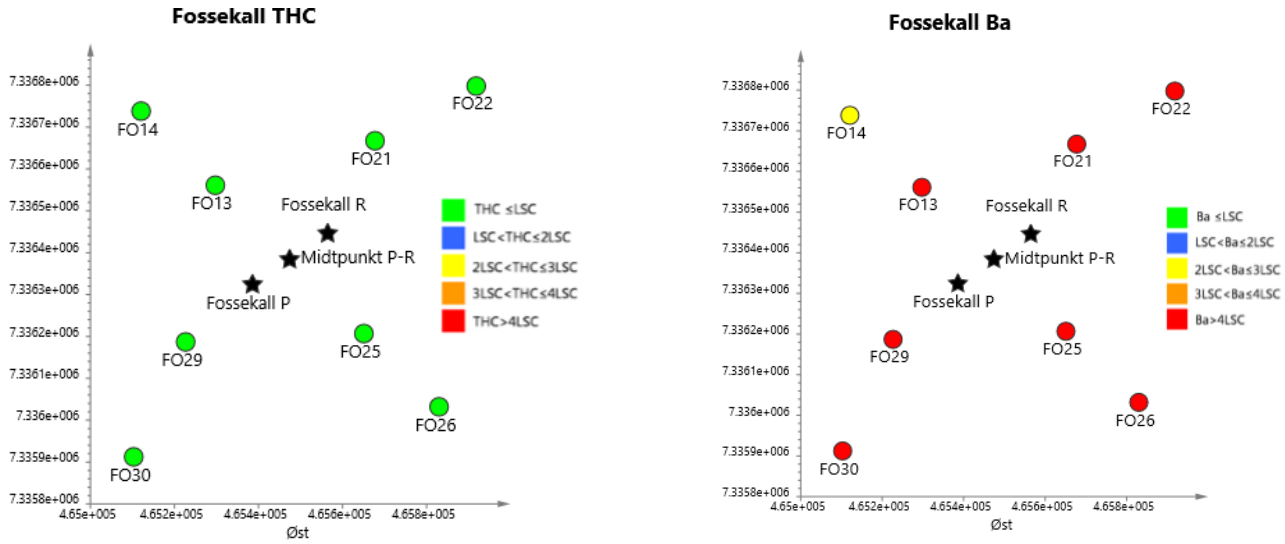
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-20. Det er ikke rapportert om boreaktvitet eller utslipp på Fossekall i perioden 2018-2020.

Tabell 3-20 Boreaktivitet og utslipp i senere tid ved Fossekall.

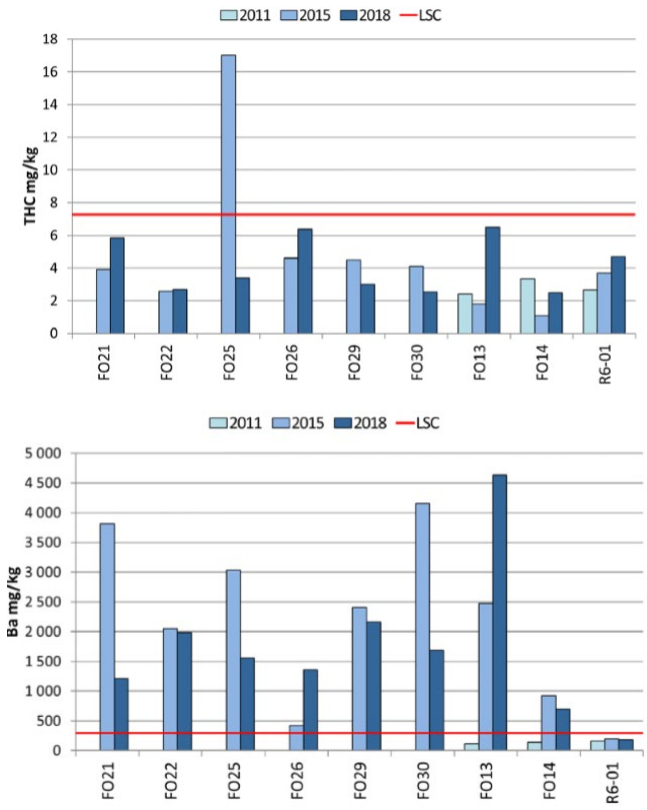
Fossekall	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Første overvåkingsundersøkelse ble utført på feltet i 2015. Mengden av THC i sedimentet i 2018 varierte fra 2 – 6 mg/kg, og det ble ikke påvist THC kontaminert sediment (>LSC). Mengden av Ba varierte fra 701 - 4636 mg/kg. Faunaen ble ikke underssøkt i 2018.

Utbredelsen av THC i sedimentet på Fossekall i 2018 er illustrert i Figur 3-27 og tidsutviklingen av THC og Ba i sedimentet er vist i Figur 3-28.



Figur 3-27 Utbredelsen av THC (høyre) og Ba (venstre) i sedimentet på Fossekall, 2018.



Figur 3-28 Konsentrasjonen av THC (øverst) og Ba (nederst) på Fossekall over tid.

Fossekall var ikke kontaminert med THC i 2018. Det foreslås at programmet reduseres i 2021 ved at bare de innerste stasjonene prøvetas og at det tas faunaprøver da dette ikke ble tatt i 2018.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utelates Fossekall fra undersøkelsen i 2021.

3.11 Dompap

Equinor er operatør i Skuld-lisensen. Lisensen, som består av feltene Fossekall (P og R-rammene) og Dompap (S-rammen), ligger ved Norne i den nordlige delen av regionen. Opplysninger om boring og utslipp på feltet er oppgitt under Fossekall.

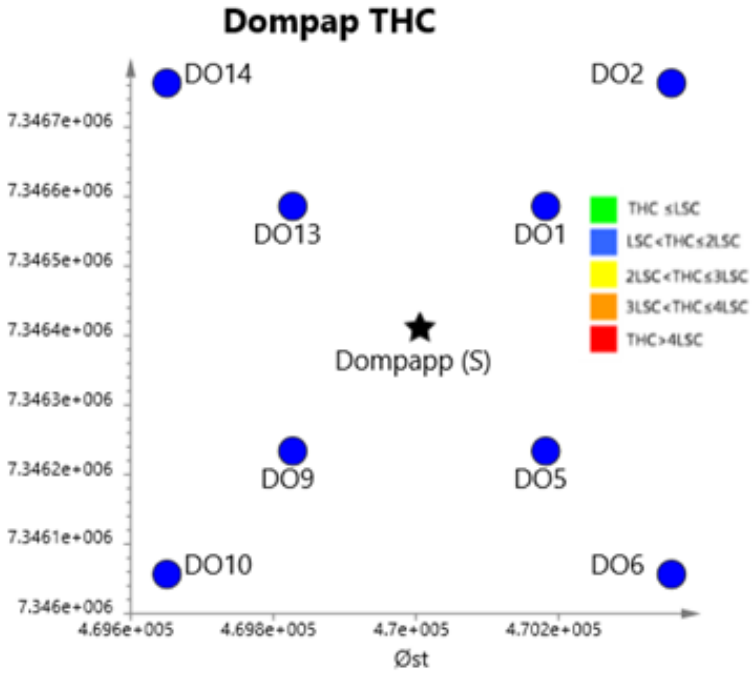
Opplysninger om boring og utslipp på feltet er vist i Tabell 3-21. Det er ikke rapportert om boreaktvitet eller utslipp på Dompap i perioden 2018-2020.

Tabell 3-21 Boreaktivitet og utslipp i senere tid ved Dompap.

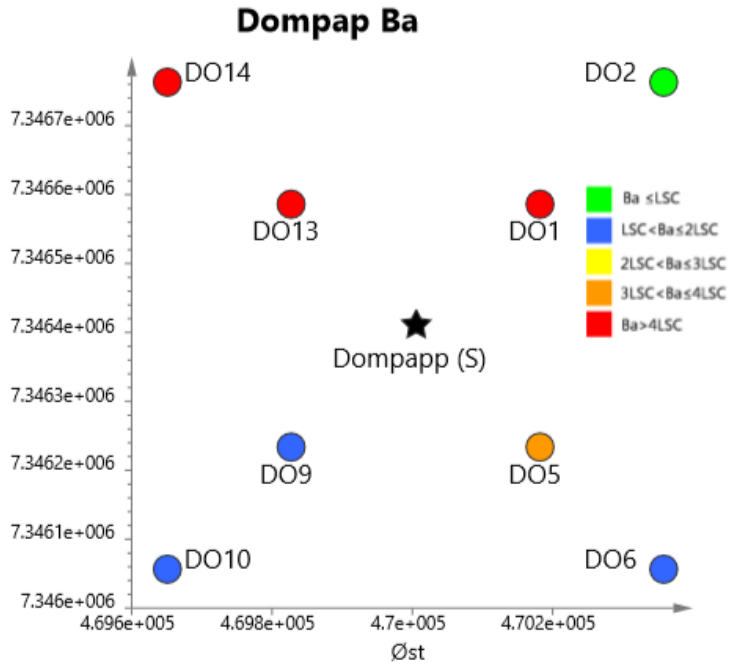
Dompap	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)	0	0	0
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Første overvåkingsundersøkelse på feltet ble gjort i 2015. Totalt areal med sediment kontaminert med THC ved Dompap ble beregnet til 0,29 km^2 i 2018. Mengden av THC i sedimentet varierte fra 7 – 11 mg/kg, mens mengden av Ba varierte fra 227 - 5822 mg/kg. Faunaen ble ikke undersøkt i 2018.

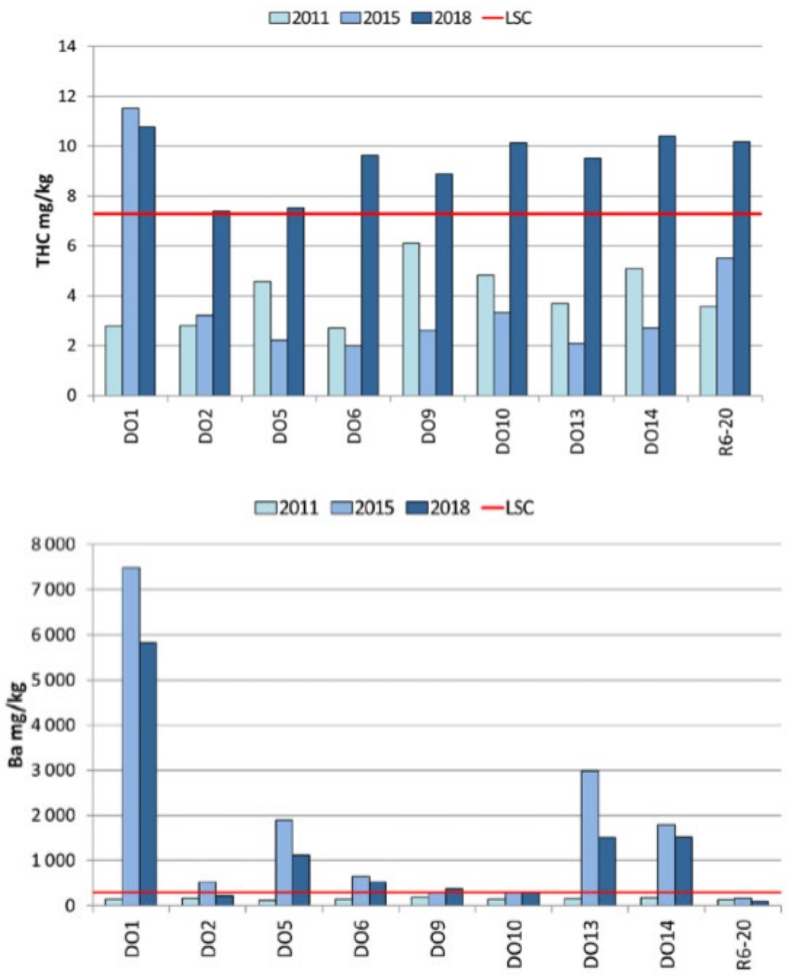
Utbredelsen av THC i sedimentet på Dompap i 2018 er illustrert i Figur 3-29 og tidsutviklingen i sedimentet er vist i Figur 3-30.



Figur 3-29 Utbredelsen av THC i sedimentet på Dompap, 2018.



Figur 3-29 fortsetter. Utbredelsen av Ba i sedimentet på Dompap, 2018.



Figur 3-30 Konsentrasjonen av THC (øverst) og Ba (nederst) på Dompap over tid.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 utelates Dompap fra undersøkelsen i 2021.

3.12 Mikkel

Mikkel ligger i blokk 6407 i den sørlige delen av Region VI. Equinor er operatør på feltet der produksjon startet i 2003.

Mikkel A ble ikke undersøkt i 2015 grunnet lave THC verdier i 2012. Feltet ble heller ikke undersøkt i 2018 da det ikke hadde vært utslipp på feltet. Mikkel B er sist undersøkt i 2009 (basert på MOD data). Mikkel A og B bør inkluderes i 2021.

Opplysninger om boring og utslipp på feltet er vist i Tabell 3-22.

Tabell 3-22 Boreaktivitet og utslipp i senere tid ved Mikkel.

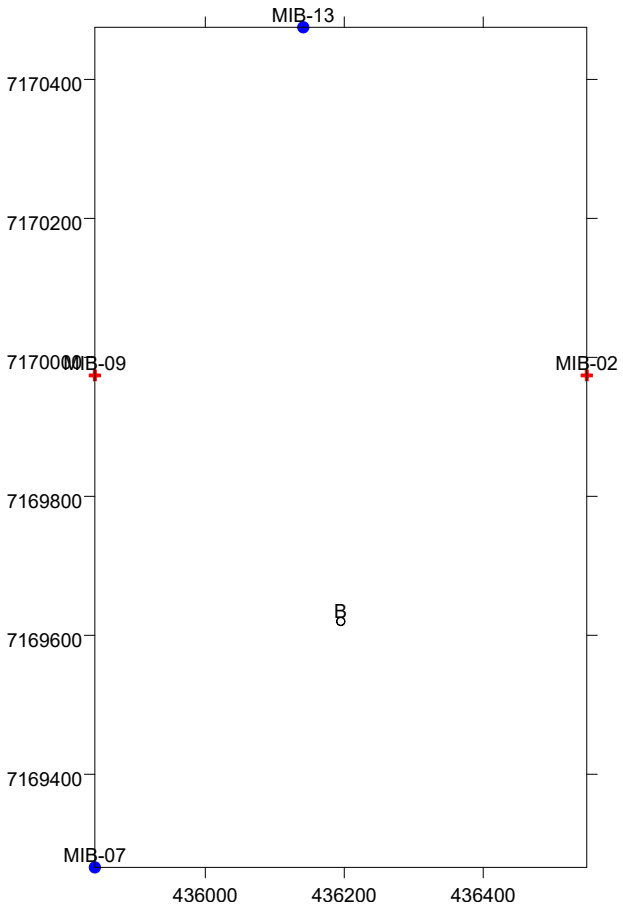
Mikkel	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	1
Utslipp (tonn)			
Baritt	0	0	124.1428
Borekaks	0	0	
Vannbasert borevæske	0	0	701.745
Sementeringskjemikalier	0	0	29.647
Kompletteringskjemikalier	0	0	54.63731
Olje i produsert vann/forurenset vann	0	0	0.05886
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Et forslag til program er vist i Tabell 3-23. Programmet foreslått for Mikkel A er det som ble gjennomført i 2012 samt at det er lagt til faunanalyser på 2 stasjoner. Programmet for Mikkel B er basert på det som ble undersøkt i 2009 samt at det er lagt til faunanalyser på 2 stasjoner.

Note: Basert på programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 og påfølgende konklusjon fra Equinor utgår Mikkel A fra årets program.

Tabell 3-23 Stasjonsposisjoner og antall analyser på Mikke A og B, 2021 (ED50 UTM sone 32).

	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/PAH
Mikkel B				**436195**	**7169620**						
MIB-02	89	397	223	436549	7169974	Bio/Kjemi	5	1	3	3	3
MIB-07	225	500	225	435841	7169266	Kjemi			3	3	
MIB-09	269	309	223	435841	7169974	Bio/Kjemi	5	1	3	3	
MIB-13	350	500	235	436141	7170475	Kjemi			3	3	
Sum							**10**	**2**	**12**	**12**	**3**
Ant stasjoner							**2**	**2**	**4**	**4**	**1**
Tas inn											
Utgår											



Figur 3-31 Stasjonskart for Mikkel, 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.13 Draugen

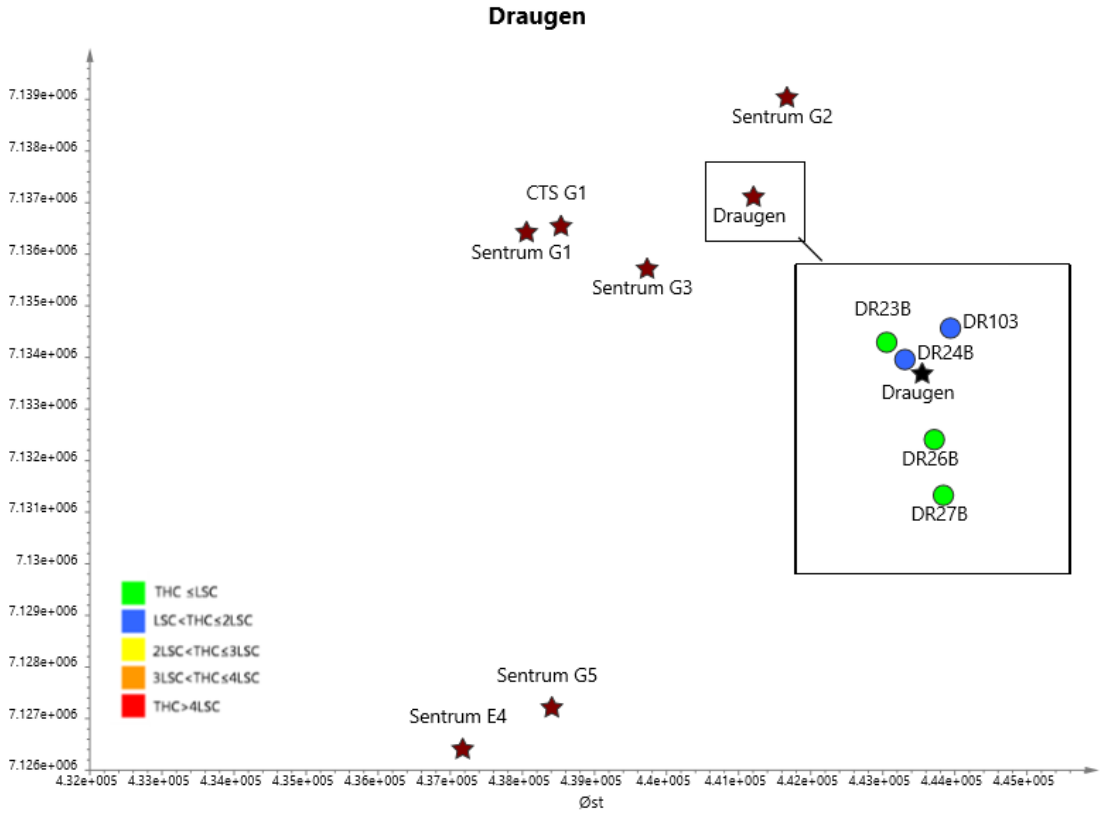
OKEA er operatør på Draugen der produksjon startet i 1993. Draugen ligger i blokk 6407 i den sørlige delen av regionen. Feltet er bygget ut med en bunnfast betongplattform med integrert dekk. Stabilisert olje blir lagret i tanker i bunnen av plattformen og føres videre i rør til flytende lastebøyer. Garn Vest og Rogn Sør er, med sine syv brønner, tilknyttet plattformen på Draugen. Opplysninger om boring og utslipp på feltet er vist i Tabell 3-24.

Tabell 3-24 Opplysninger om den senere tids bore- og utslippsaktivitet på Draugen, Rogn sør og Garn.

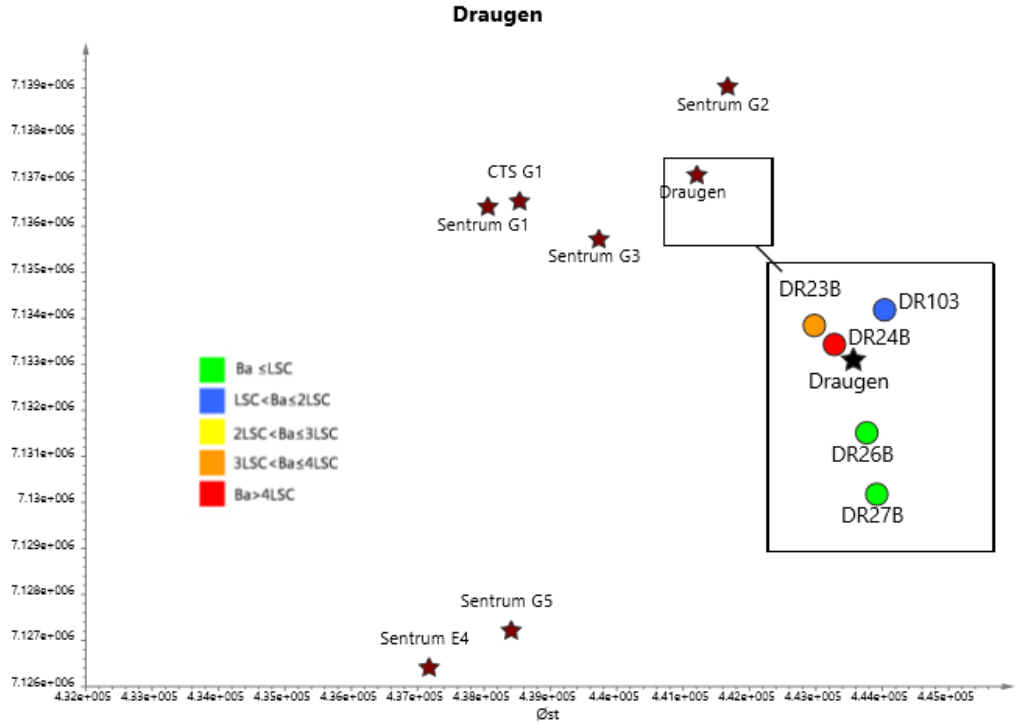
Draugen	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)		0	0
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	75.4	119.3	105.8
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	< 1000 l hydraulikkvæske. Lekkasje NWIT	0,25 l/time hydraulikkvæske (pågående, Draugen)	70 l hydraulikkvæske (Draugen)

I 2018 varierte mengden av THC i sedimentet fra 6 – 8 mg/kg, mens mengden av Ba varierte fra 267 - 1929 mg/kg. Kontaminert areal ble beregnet til mellom 0,8 (lav) og 1,2 (høy) km^2. I 2015 var sedimentet ikke kontaminert. Det ble ikke gjennomført faunaanalyser på Draugen i 2018.

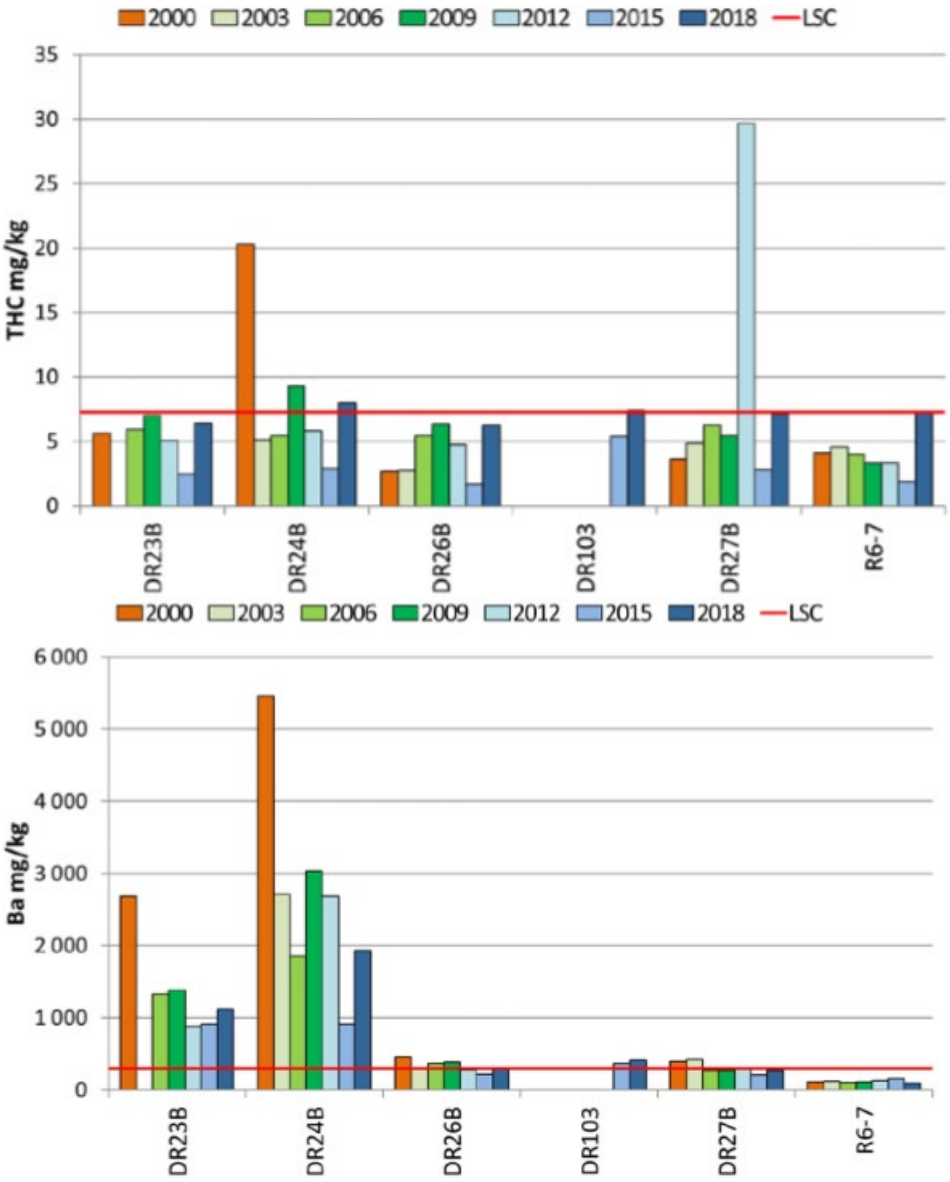
Utbredelsen av THC og Ba i sedimentet på Draugen i 2018 er illustrert i Figur 3-32 og tidsutviklingen i sedimentet er vist i Figur 3-33.



Figur 3-32 Utbredelsen av THC i sedimentet på Draugen, 2018.



Figur3-32 fortsetter. Utbredelsen av Ba i sedimentet på Draugen, 2018.



Figur 3-33 Konsentrasjonen av THC (øverst) og Ba (nederst) på Draugen over tid.

Basert på resultatene i 2018 foreslås:

0-90° transekt: Stasjon DR103 ble undersøkt i 2018 og THC var på nivå med LSC. Det foreslås å beholde stasjonen i 2018 men inkludere faunaprøver da det ikke ble tatt faunaprøver i 2018.

90-180° transekt: Stasjon 26B og 27B ble undersøkt i 2018 og THC<LSC på begge stasjonene. Det foreslås å utelate stasjon 27B i 2021 og å beholde stasjon 26B samt inkludere faunaanalyser på denne stasjonen.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 beholdes stasjon 27B i dette transektet (Skal tas prøver til radioaktivitet).

180-270° transekt: Det eksisterer ingen overvåkingsstasjoner i dette transektet med samme referanse for nullpunkt som de øvrige stasjonene rundt Draugen platformen. Gitt Lave THC verdier i 2018 foreslås det ikke å etablere nye stasjoner.

270-360° transekt: Stasjon 23B og 24B ble undersøkt i 2018 og THC<LSC på 23B og >LSC på 24B stasjonene. Det foreslås å beholde de samme stasjonene i 2018 samt å inkludere faunanalyser.

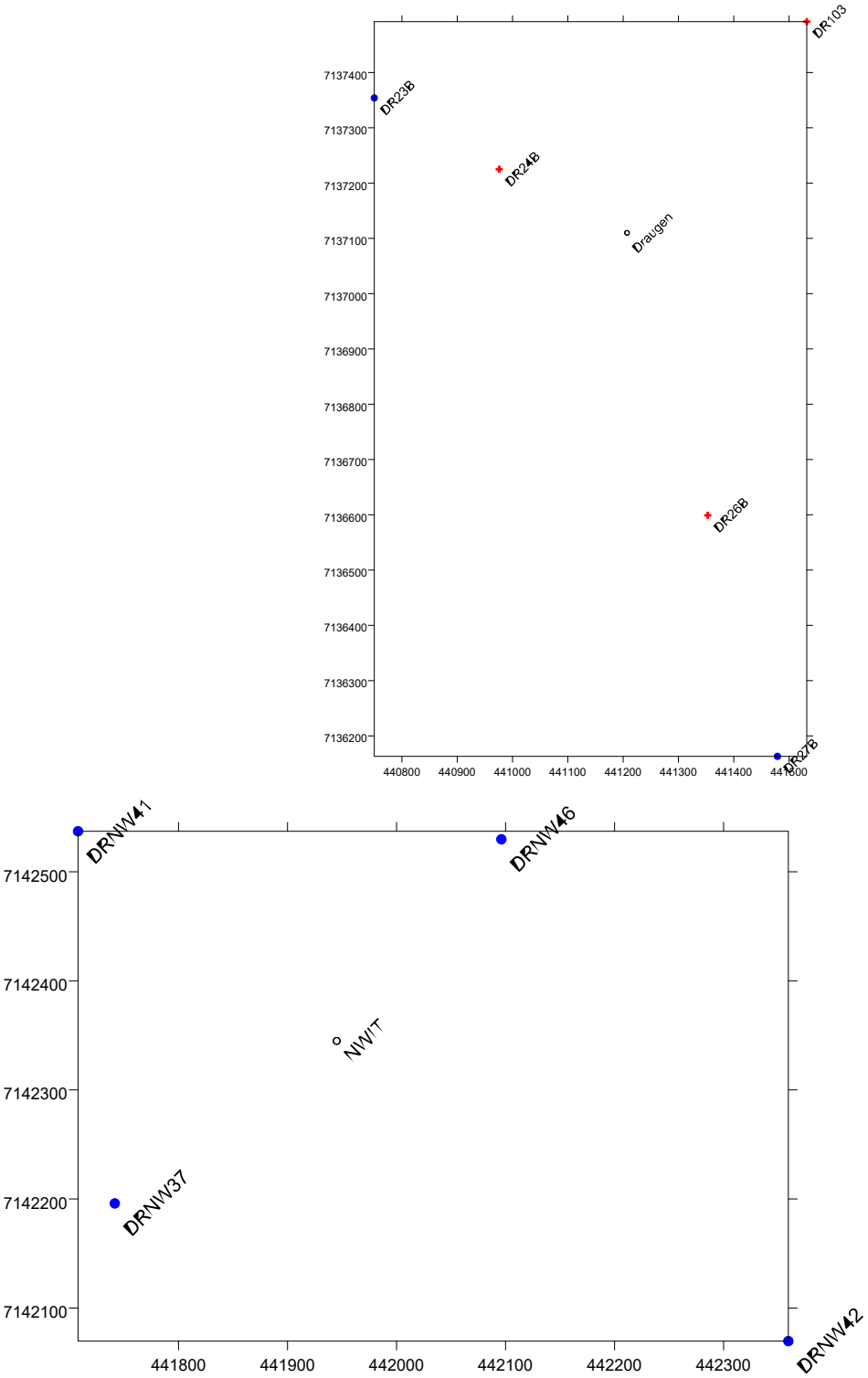
Det gjennomføres også en oppfølgende undersøkelse på Draugen NWIT grunnet hydraulikk lekkasje her.

Posisjonene og analyseprogram er vist i Tabel 3-25 og Figur 3-34.

Tabell 3-25 Stasjonsposisjoner og antall analyser på Draugen, 2018 (ED50 UTM sone 32).

St. nr.	Grader	Avstand	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH	Radio
Sentrum	-	-	-	**441207**	**7137110**	-						
DR23B	300	500	249	440750	7137354	Kjemi			3	3	3	3
DR24B	300	250	251	440976	7137225	Bio/Kjemi	5	1	3	3		3
DR26B	162	500	254	441353	7136599	Bio/Kjemi	5	1	3	3		3
DR103[1)]	40	500	246	441532	7137492	Bio/Kjemi	5	1	3	3		3
DR27B	162	1000	276	441479	7136163				3	3		3
NWIT	-	-	-	441945	7142345							
DRNW37	215	250		441741	7142196	Kjemi			3	3	3	
DRNW41	305	250		441707	7142537	Kjemi			3	3	3	
DRNW42	125	250		442359	7142070	Kjemi			3	3	3	
DRNW46	30	250		442096	7142530	Kjemi			3	3	3	
Sum							**15**	**3**	**27**	**27**	**15**	**15**
Ant stasjoner							**3**	**3**	**9**	**9**	**5**	**5**
THC>LSC												
Ba>2*LSC												
THC >LSC & Ba>2LSC												
Tas inn												
Utgår												

1) Flyttet i 2018



Figur 3-34 Stasjonskart for Draugen og NWIT (nederst), 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.14 Rogn sør

OKEA er operatør på Draugen der produksjon startet i 2003. I tilknytning til Draugen og Garnfeltene er fire brønner etablert med to tilhørende CTS (Cuttings Transport System) i nærheten.

Opplysninger om boring og utslipp på feltet er vist i tabell for Draugen, se Tabell 3-24

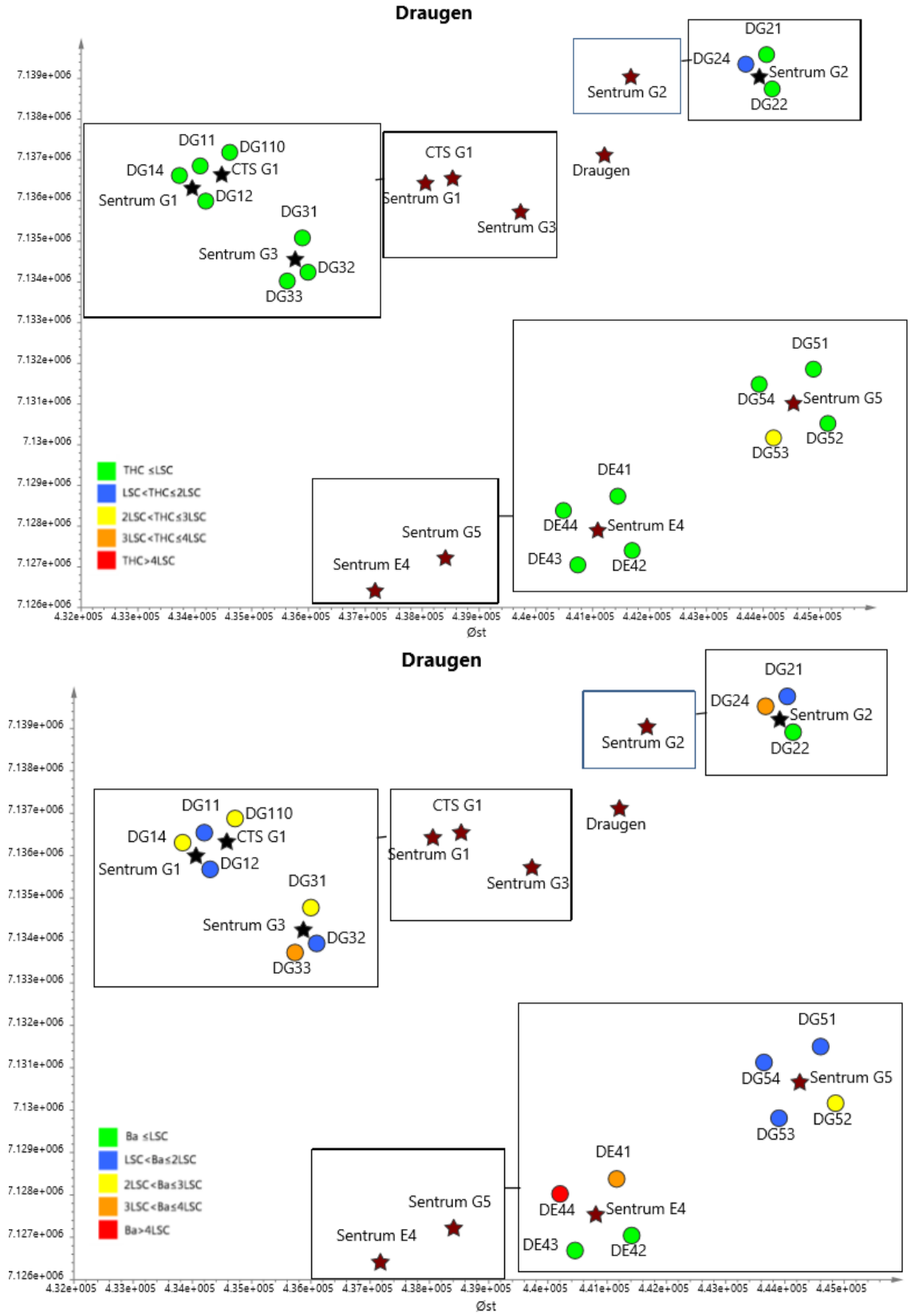
I 2018 ble det prøvetatt på 18 stasjoner rundt infill brønnene.

Det ble ikke målt THC > LSC rundt brønnene DG1, DG3 og DE4. Faunaen ble vurdert å være uforstyrret på alle de undersøkte stasjonene.

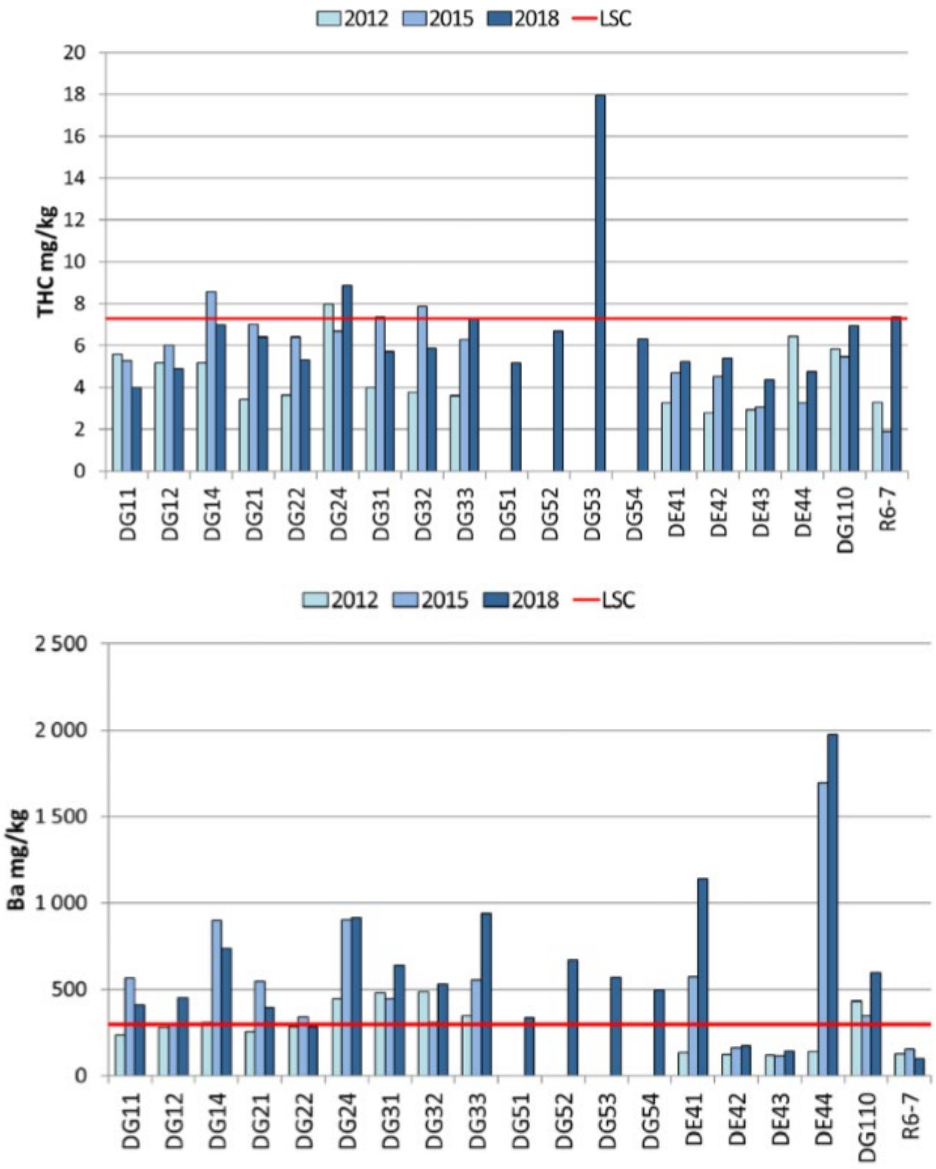
Rundt brønn DG2 var THC > LSC på 1 av de 3 undersøkte stasjonene. Kontaminert areal er beregnet til mellom 0,2 km^2 (lav) og 0,3 km^2 (høy), som er noe lavere sammenliknet med 2015 hvor det ble beregnet 0,8 km^2. Ba > LSC på 2 av de 3 undersøkte stasjonene. THC konsentrasjonene er på nivå med det som ble funnet i 2015.

Rundt brønn DG5 er THC > LSC på 1 av de 4 undersøkte stasjonene. Kontaminert areal er beregnet til mellom 0,2 km^2 (lav) og 0,3 km^2 (høy). Ba > LSC på alle de 4 undersøkte stasjonene. Brønnen er ikke undersøkt tidligere.

Utbredelsen av THC i sedimentet på Røgn sør og CTS i 2018 (merk kalt Draugen infill og CTS tidligere) er illustrert i Figur 3-35 og tidsutviklingen av THC og Ba i sedimentet er vist i Figur 3-36.



Figur 3-35 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Røgn sør, 2018.



Figur 3-36 Konsentrasjonen av THC (øverst) og Ba (nederst) på Rogn sør over tid.

Det ble ikke målt THC > LSC rundt brønnene DG1, DG3 og DE4, og det foreslås at disse utgår.

Rundt brønn DG2 var THC > LSC på 1 av de 3 undersøkte stasjonene. Kontaminert areal er beregnet til mellom 0,2 km^2 (lav) og 0,3 km^2 (høy), som er noe lavere sammenliknet med 2015 hvor det ble beregnet 0,8 km^2. THC konsentrasjonene er på nivå med det som ble funnet i 2015. Det foreslås å følge opp brønnen med samme overvåkingsprogram i 2021.

Rundt brønn G5 er THC > LSC på 1 av de 4 undersøkte stasjonene. Kontaminert areal er beregnet til mellom 0,2 km^2 (lav) og 0,3 km^2 (høy). Brønnen er ikke undersøkt tidligere. Det foreslås å følge opp brønnen med samme overvåkingsprogram i 2021.

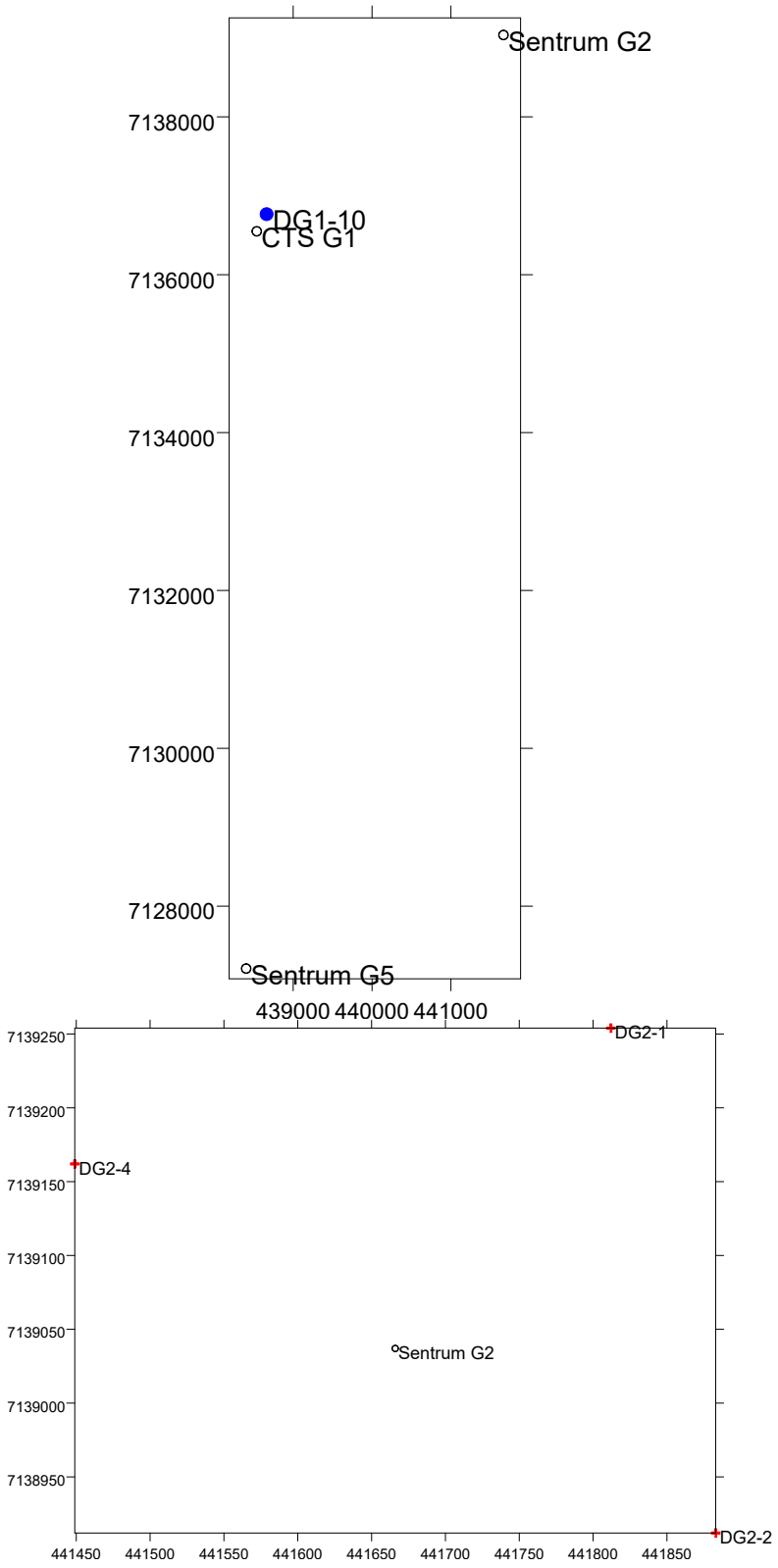
Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 er det lagt til en stasjon utenfor G5-3-18 (stasjon DG55).

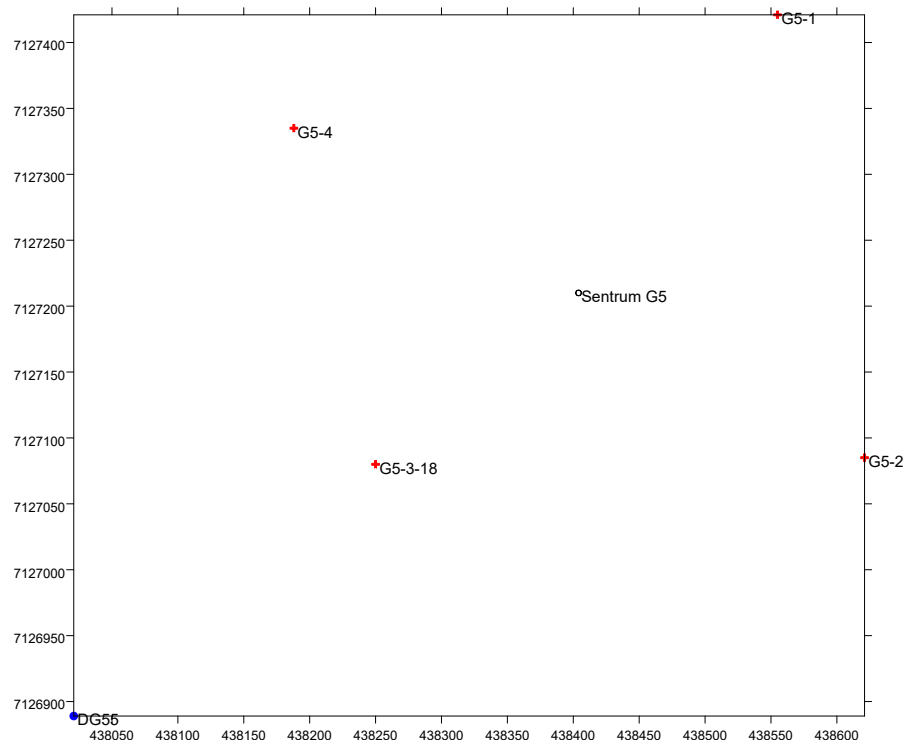
Posisjonene og analyseprogram er vist i Tabell 3-26 og Figur 3-37.

Tabell 3-26 Stasjonsposisjoner og antall analyser på Draugen Infill og CTS, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/ PAH
Sentrum G1	-	-	-	**438060**	**7136417**	-					
DG1-1	30	250	257	438185	7136634						
DG1-2	120	250	256	438277	7136292						
DG1-4	300	250	260	437843	7136542						
Sentrum G2	-	-		**441666**	**7139037**	-					
DG2-1[1)]	34	261	245	441812	7139254	Bio/kjemi	5	1	3	3	
DG2-2	120	250	243	441883	7138912	Bio/kjemi	5	1	3	3	
DG2-4	300	250	245	441449	7139162	Bio/kjemi	5	1	3	3	3
Sentrum G3	-	-		**439733**	**7135710**	-					
DG3-1[1)]	30	250	263	439858	7135927						
DG3-2	120	250	264	439949,5	7135585						
DG3-3	210	250	267	439608	7135493						
Sentrum G5 (ny)				438404,5	7127210,45						
G5-1[1)]	36	260	-	438555	7127421	Bio/kjemi	5	1	3	3	
G5-2	120	250	-	438621	7127085	Bio/kjemi	5	1	3	3	
G5-3-18[1)]	230	205	-	438250	7127080	Bio/kjemi	5	1	3	3	3
DG55	230	500		438021	7126889	Kjemi			3	3	3
G5-4	300	250	-	438188	7127335	Bio/kjemi	5	1	3	3	
Sentrum E4	-	-		**437175**	**7126413**	-					
DE4-1	30	250	295	437300	7126630						
DE4-2	120	250	292	437392	7126288						
DE4-3	210	250	297	437050	7126196						
DE4-4	300	250	299	436958	7126538						
CTS G1				**438538**	**7136550**	-					
DG1-10	30	250	260	438663	7136767	Kjemi			3	3	
Sum							**35**	**7**	**27**	**27**	**9**
Ant stasjoner							**7**	**7**	**9**	**9**	**3**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Tas inn											
Utgår											

1) Flyttet i 2018.


Sentrum G2
7138000
DG1-10
CTS G1
7136000
7134000
7132000
7130000
7128000
Sentrum G5
439000 440000 441000
7139250
7139200
7139150
7139100
7139050
7139000
7138950
DG2-1
DG2-4
Sentrum G2
DG2-2
441450
441500
441550
441600
441650
441700
441750
441800
441850



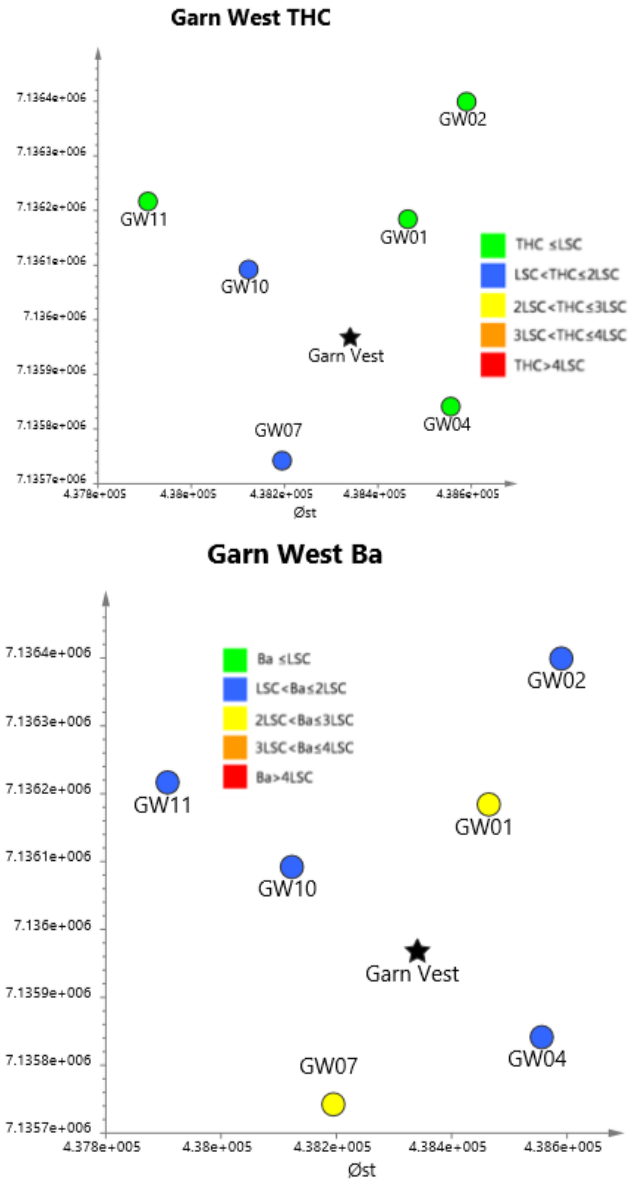
Figur 3-37 Oversikt Rogn sør (øverst), stasjonsoversikt G2 og G5 (nederst), 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.15 Garn Vest

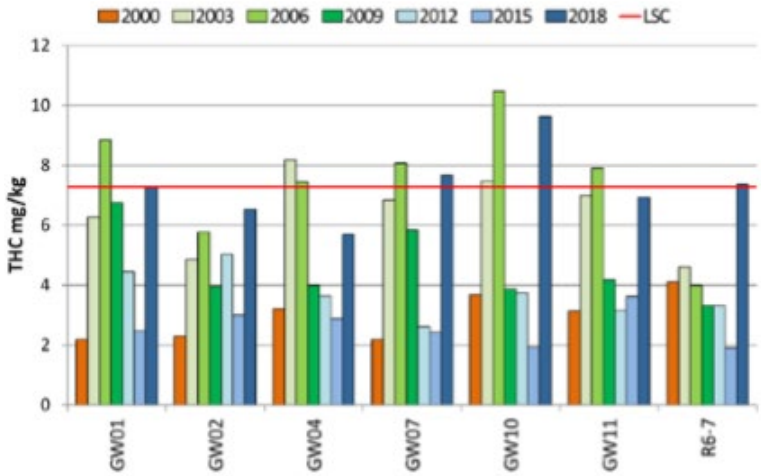
OKEA er operatør på Garn Vest. Feltet ligger i blokk 6407 i den sørlige delen av regionen. Draugen produserer olje fra to fromasjoner hvor garnformasjonene er den ene. Bore- og utslippsopplysninger inngår i Draugen.

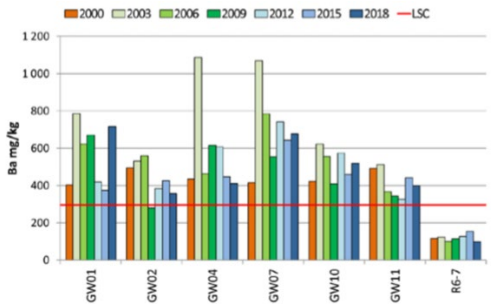
Det ble kun samlet inn prøver for kjemianalyser i 2018. Kontaminert areal ble beregnet til mellom 0,3 km^2 (lav) og 0,4 km^2 (høy) i 2018. I 2015 var sedimentet ikke kontaminert. Mengden av THC i sedimentet i sedimentet var lavt og varierte fra 6 – 10 mg/kg, mens Ba varierte fra 357 - 717 mg/kg. THC konsentrasjonene er høyere i 2018 sammenliknet med 2015.

Utbredelsen av THC i sedimentet på Garn west i 2018 er illustrert i Figur 3-38 og tidsutviklingen av THC og Ba i sedimentet er vist i Figur 3-39.



Figur 3-38 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Garn vest, 2018.





Figur 3-39 Konsentrasjonen av THC (øverst) og Ba (nederst) på Garn vest over tid.

Basert på resultatene fra 2018 forelås følgende:

0-90° transekt: Stasjonene GW1 og 2 ble undersøkt i dette transektet i 2018 og THC<LSC på begge stasjonene. Det foreslås å utelate stasjon GW2 i 2021.

90-180° transekt: Stasjon GW4 ble undersøkt i dette transektet i 2018 og THC<LSC. Det foreslås å undersøke samme stasjon i 2021 samt å inkludere faunanalyser da det ikke ble tatt faunanalyser i 2021. Stasjon GW4 er nærmestes stasjon og antatt nedstrøms.

Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 tas biologianayser på stasjon GE7 istedenfor GW4.

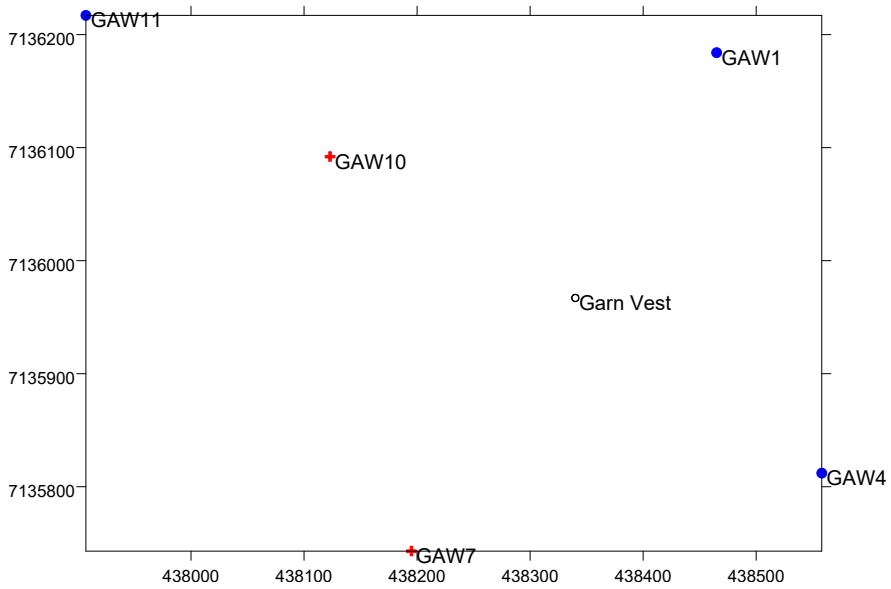
180-270° transekt: Stasjon GW7 ble undersøkt i dette transektet i 2018 og THC var på nivå med LSC. Det foreslås å undersøke samme stasjon i 2021.

270-360° transekt: Stasjonene GW10 og 11 ble undersøkt i 2018 og THC<LSC på GW11 >LSC på GW10. Det foreslås å undersøke samme stasjoner i 2021 samt å inkludere faunanaluser på stasjon GW10 da fauna ikke ble analysert i 2018.

Tabell 3-27 Stasjonsposisjoner og antall analyser på Garn Vest, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Sentrum	-	-	-	**438340**	**7135967**						
GW1	30	250	257	438465	7136184	Kjemi			3	3	
GW4[1)]	125	267	267	438558	7135812	Bio/Kjemi			3	3	
GW7	210	250	265	438195	7135743	Kjemi	5	1	3	3	
GW10	300	250	264	438123	7136092	Bio/Kjemi	5	1	3	3	3
GW11	300	500	257	437907	7136217	Kjemi			3	3	
Sum							**10**	**2**	**15**	**15**	**3**
Ant stasjoner							**2**	**2**	**5**	**5**	**1**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Tas inn											

1) Flyttet i 2018



Figur 3-40 Stasjonskart for Garn Vest, 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.16 Marulk

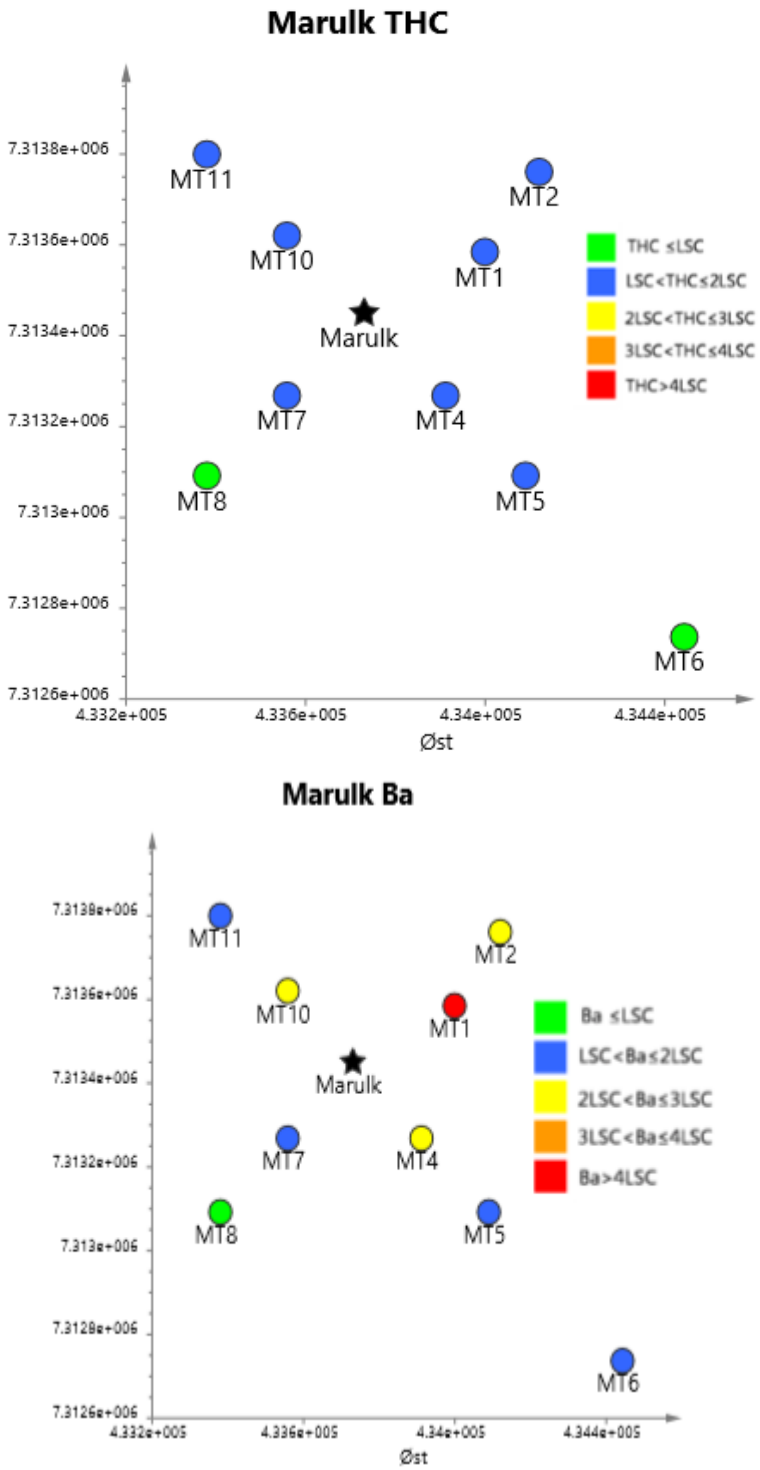
Eni Norge er operatør på Marulk der produksjon startet i 2012. Grunnlagsundersøkelsen var i 2009. Marulk ligger i blokk 6507 i den nordlige delen av regionen og er knyttet opp mot Norne. Marulk består av en bunnramme med fire slisser, nåværende produksjon foregår fra Lysingformasjonen med to produksjonsbrønner og én brønn fra Langeformasjonen som ble boret i 2019.

Opplysninger om utslipp fra Marulk er presentert i Tabell 3-28.

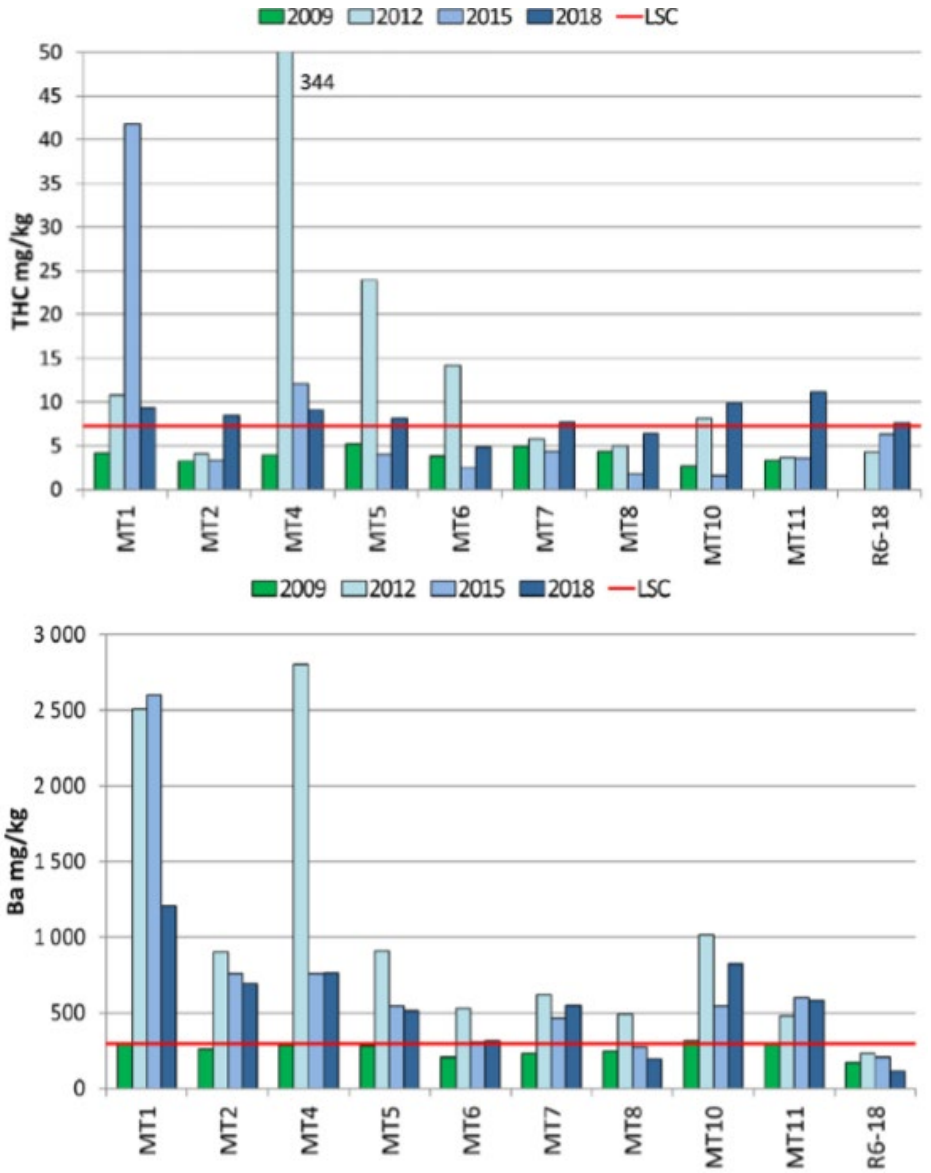
Tabell 3-28 Opplysninger om den senere tids bore- og utslippsaktivitet på Marulk. Det ble boret en brønn i 2019.

Marulk	2018	2019	2020
Type utslipp/ aktivitet		Boring	
Antall brønner boret		1	
Utslipp (tonn)			
Baritt		565	
Borekaks		860	
Vannbasert borevæske		1700	
Sementeringskjemikalier		215	
Kompletteringskjemikalier		-	
Olje i produsert vann/forurenset vann		-	
Uhellsutslipp (m^3)		-	
Vannbasert borevæske		-	
Oljebasert borevæske		-	
Andre oljeutslipp/ lekkasjer		-	

Utbredelsen av THC i sedimentet på Marulk i 2018 er illustrert i Figur 3-41 og tidsutviklingen av THC og Ba i sedimentet er vist i Figur 3-42.



Figur 3-41 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Marulk, 2018.



Figur 3-42 Konsentrasjonen av THC (øverst) og Ba (nederst) på Marulk over tid.

Totalt areal med sediment kontaminert med THC ble beregnet til mellom 1,2 km^2 (lav) og 2,4 km^2 (høy) i 2018, som var høyere sammenliknet med 2015 (0,44 km^2). Mengden av THC i sedimentet varierte fra 5 – 11 mg/kg, mens Ba varierte fra 195 – 1205 mg/kg. Faunaen ble vurdert å være uforstyrret på alle stasjonene.

THC >LSC på 7 av 9 undersøkte stasjoner mens Ba > LSC på 8 av 9 undersøkte stasjoner. THC konsentrasjonene er grenerelt høyere sammenliknet med undersøkelsen i 2015 men på nivå med eller lavere sammenliknet med undersøkelsen i 2012.

Basert på resultatene fra 2018 forelås følgende:

0-90° transekt: Stasjon MT1 og 2 er undersøkt i dette transektet i 2018 og THC>LSC på stasjon MT1 (250 m) og på nivå med LSC på stasjon MT2. Det foreslås å gjennomføre samme program i 2021, dvs beholde begge stasjoner.

90-180° transekt: Stasjon MT4-6 og er undersøkt i dette transektet i 2018 og THC>LSC på den innerste stasjonen (MT4) og <LSC på den ytterste stasjonen MT6 (1000 m). Det foreslås å gjennomføre samme program i 2021.

180-270° transekt: Stasjon MT7 og 8 er undersøkt i dette transektet i 2018 og THC er på nivå med LSC på stasjon MT7 (250 m) og <LSC på stasjon MT8. Det foreslås å gjennomføre samme program i 2021, dvs beholde begge stasjoner.

270-360° transekt: Stasjon MT10 og 11 er undersøkt i dette transektet i 2018 og THC>LSC på begge stasjonene. Det foreslås å legge til stasjon MT12 (315°/1000 m) for å avgrense eventuell forurensing, og å beholde prgrammet forøvrig.

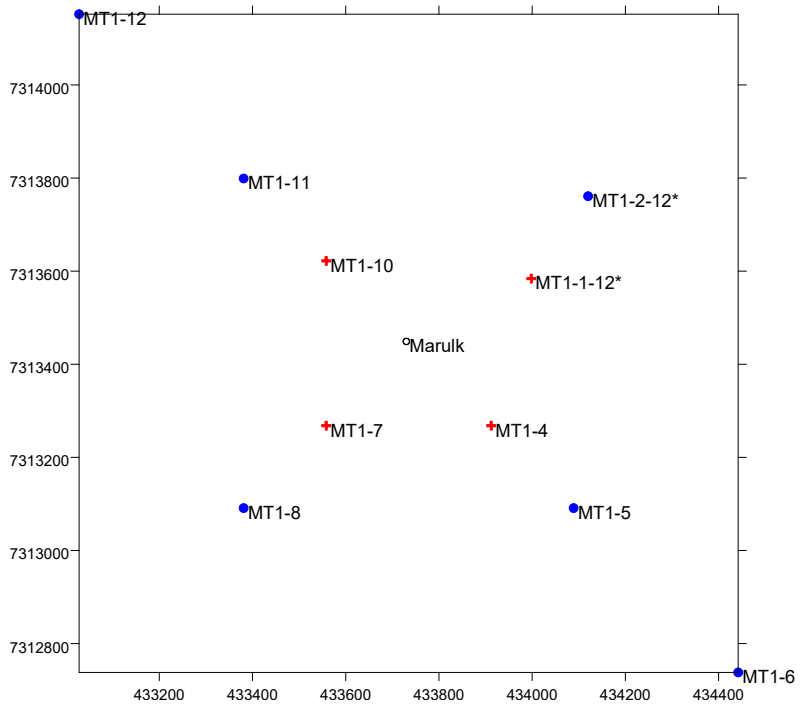
Note: Basert på konklusjonen i programmøtet mellom operatører og Miljødirektoratet 8. mars 2021 tas biologianayser ut fra programmet på Marulk.

Posisjonene og analyseprogram er vist i Tabell 3-29 og Figur 3-43.

Tabell 3-29 Stasjonsposisjoner og antall analyser på Marulk, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Sentrum	**-**	**-**	**-**	**433730**	**7313449**	**-**					
MT1-1-12*	63	250	366	433998	7313584	Bio/kjemi			3	3	3
MT1-2-12*	51	500	368	434120	7313761	Kjemi			3	3	3
MT1-4	135	250	365	433912	7313268	Bio/kjemi			3	3	3
MT1-5	135	500	364	434089	7313091	Kjemi			3	3	
MT1-6	135	1000	364	434442	7312738	Kjemi			3	3	
MT1-7	225	250	364	433558	7313268	Bio/kjemi			3	3	
MT1-8	225	500	365	433381	7313091	Kjemi			3	3	
MT1-10	315	250	364	433558	7313622	Bio/kjemi			3	3	
MT1-11	315	500	366	433381	7313799	Kjemi			3	3	
MT1-12	315	1000	370	433028	7314152	Kjemi			3	3	
Sum prøver									**30**	**30**	**9**
Ant stasjoner									**10**	**10**	**3**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Tas inn											
Utgår											

*MT1-1, MT1-2 og MT1-3 ble flyttet i 2012 pga konflikt med rørledning.



Figur 3-43 Stasjonskart for Marulk, 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.17 Skarv og Idun

AkerBP Norge er operatør på Skarv og Idun der produksjonen startet i 2015. Feltene ligger i blokk 6507 i den nordlige delen av regionen. Utbyggingen vil bestå av en flytende produksjonsinnretning knyttet opp mot fem bunnrammer.

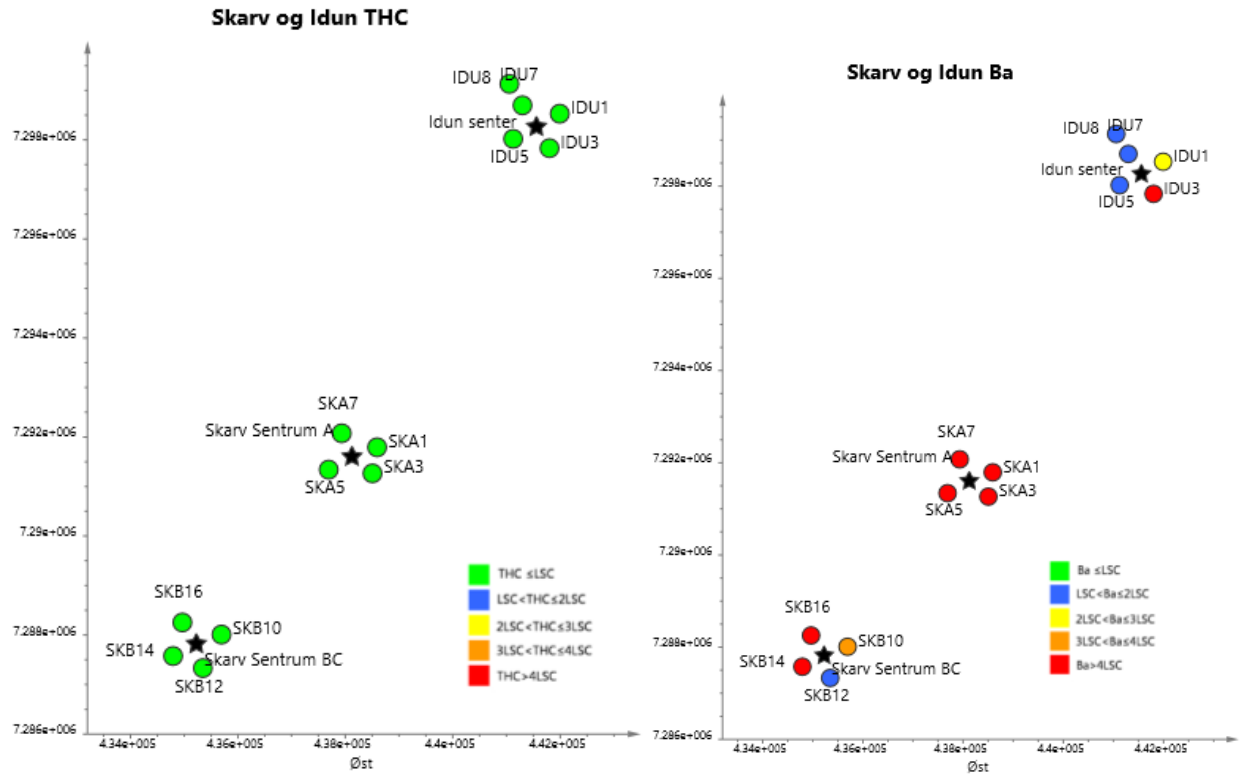
Opplysningene om boring og utslipp på feltene er vist i Tabell 3-30. Det har også vært P&A aktivitet i Skarvområdet siden forrige undersøkelse.

Tabell 3-30 Opplysninger om den senere tids bore- og utslippsaktivitet på Skarv & Idun.

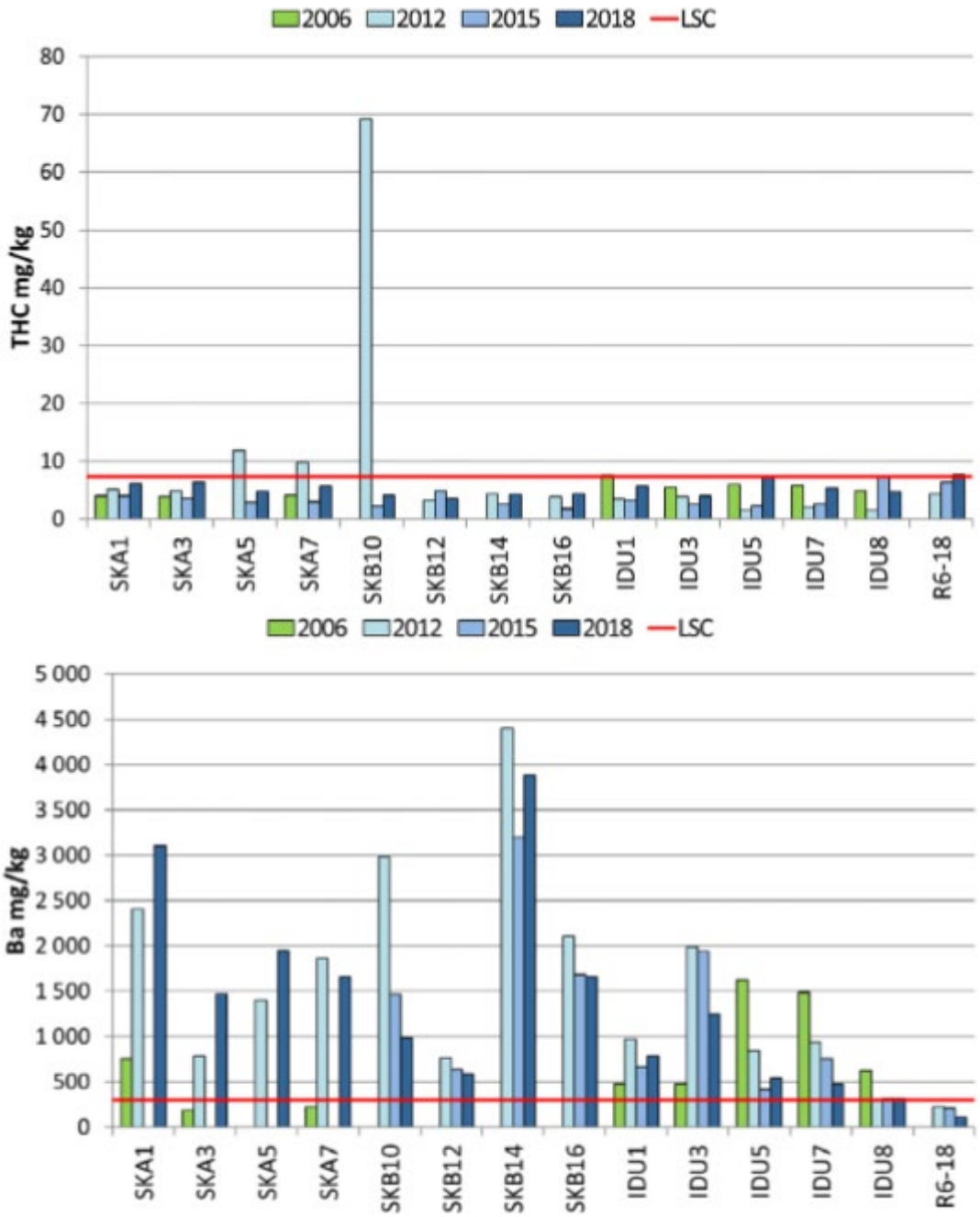
Skarv & idun	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0		0
Borekaks	0	0	0
Vannbasert borevæske	0	464	0
Sementeringskjemikalier	0	0.7	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	1	1	1
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Det ble ikke påvist kontaminert sediment på feltet i 2018. Mengden av THC i sedimentet varierte fra 4 til 7 mg/kg, mens Ba varierte fra 315 – 3891 mg/kg. Faunaen ble ikke undersøkt i 2018.

Utbredelsen av THC i sedimentet på Skarv og Idun i 2015 er illustrert i Figur 3-44 og tidsutviklingen for THC og Ba i sediment er vist i Figur 3-45.



Figur 3-44 Utbredelsen av THC og Ba i sedimentet på Skarv & idun, 2018.



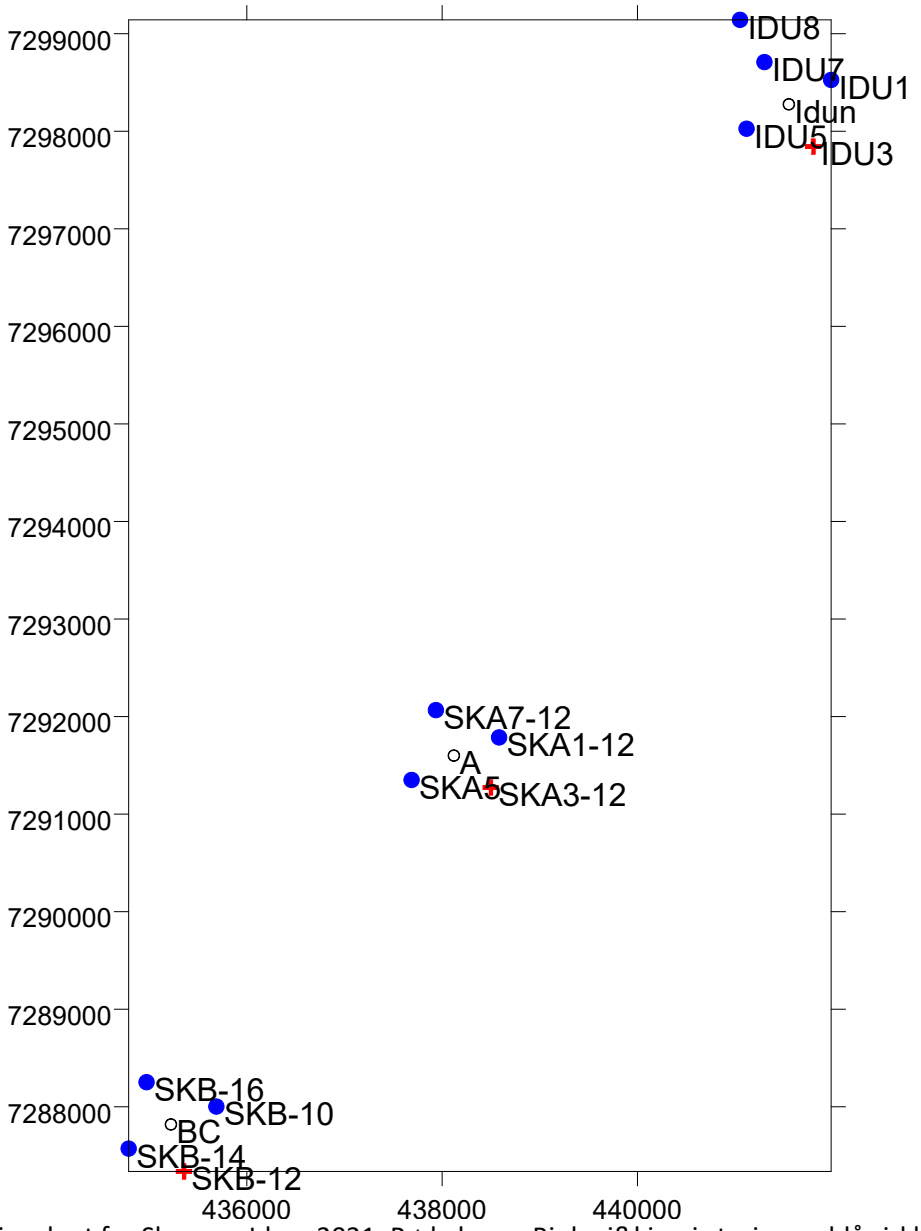
Figur 3-45 Konsentrasjonen av THC (øverst) og Ba (nederst) på Skarv & Idun over tid.

Sedimentet på Idun og Skarv er ikke kontaminert med THC og konsentrasjonen i sediment er på nivå med tidligere undersøkelser. Det foreslårs derfor at overvåkingen viderføres med bare kjemianalyser på de innerste stasjonene. IDU8 (avstand 1000m) utgår fra programmet. Det foreslås en faunaanalyse pr. ramme da det ikke ble gjennomført faunanalyser i 2018.

Analyser av PAH/NPD utføres som vist i tabellen under i tillegg på stasjoner hvor THC > 50 mg/kg. Posisjonene og analyseprogram er med er vist i Tabell 3-31 og Figur 3-46.

Tabell 3-31 Stasjonsposisjoner og antall analyser på Skarv og Idun, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Sentrum A	**-**	**-**	**-**	**438120**	**7291600**	**-**					
SKA1-12	68	500	324	438583	7291786	Kjemi			3	3	
SKA3-12	131	500	323	438497	7291273	Bio/Kjemi	5	1	3	3	
SKA5	240	500	324	437687	7291350	Kjemi			3	3	
SKA7-12	339	500	325	437936	7292066	Kjemi			3	3	3
Sentrum BC				**435223**	**7287819**						
SKB-10	60	500	365	435688	7288002	Kjemi			3	3	
SKB-12	150	500	376	435356	7287337	Bio/Kjemi	5	1	3	3	
SKB-14	239	278	386	434790	7287571	Kjemi			3	3	
SKB-16	330	500	374	434973	7288252	Kjemi			3	3	3
Sentrum Idun				**441550**	**7298276**						
IDU1	60	500	389	441983	7298526	Kjemi			3	3	
IDU3	150	500	385	441800	7297843	Bio/Kjemi	5	1	3	3	
IDU5	240	500	387	441117	7298026	Kjemi			3	3	
IDU7	330	500	390	441300	7298709	Kjemi			3	3	3
IDU8	330	1000	390	441050	7299142	Kjemi					
Sum							**15**	**3**	**36**	**36**	**9**
Ant stasjoner							**3**	**3**	**12**	**12**	**3**
Ba>2*LSC											
Utgår											



Figur 3-46 Stasjonskart for Skarv og Idun, 2021. Røde kryss: Biologi&kjemi stasjoner, blå sirkler: Kjemistasjoner.

3.18 Outer Snadd

AkerBP Norge er operatør på Outer Snadd som ligger i den nordlige delen av regionen.

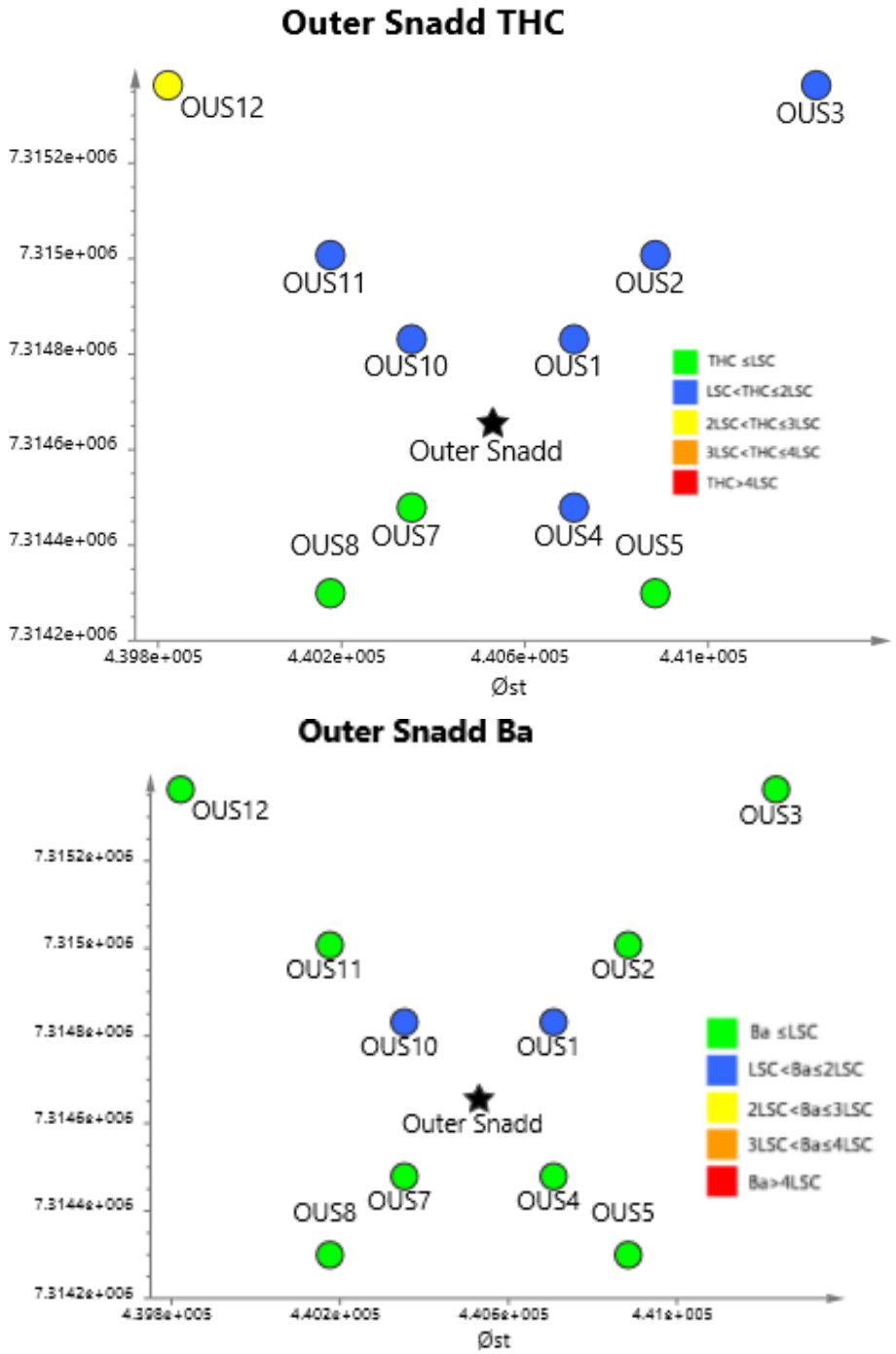
Opplysningene om boring og utslipp på felene er vist i Tabell 3-32. Det har også vært P&A aktivitet i Skarvområdet siden forrige undersøkelse så Aker BP har ønsket å undersøke Outer snadd (Skarvområdet generelt) til tross for null utslipp.

Tabell 3-32 Opplysninger om den senere tids bore- og utslippsaktivitet på Outer Snadd.

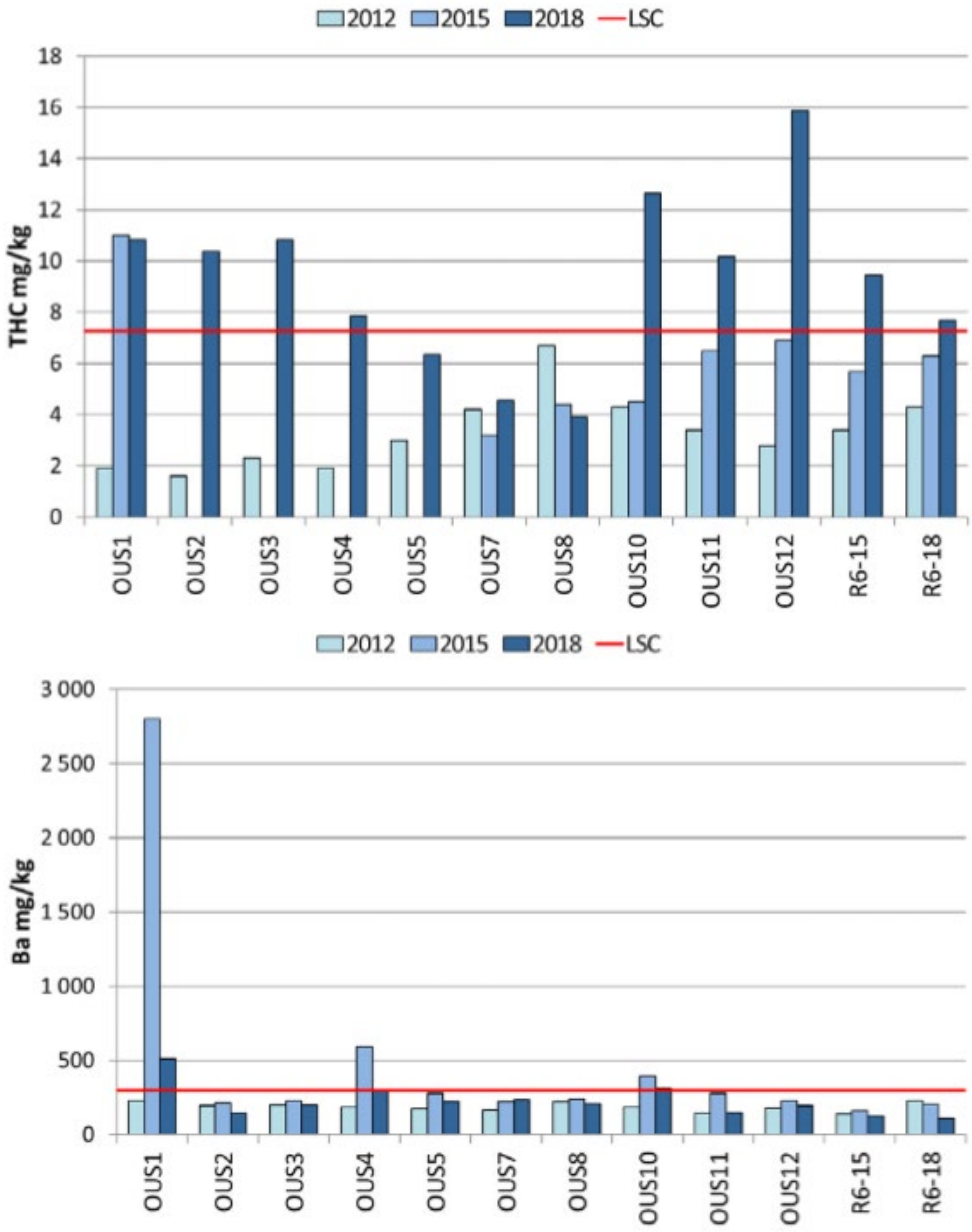
Skarv & idun	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	0	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	0	0
Vannbasert borevæske	0	0	0
Sementeringskjemikalier	0	0	0
Kompletteringskjemikalier	0	0	0
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	0
Andre oljeutslipp/ lekkasjer	0	0	0

Totalt areal med sediment kontaminert med THC ved Outer Snadd ble beregnet til mellom 0,9 km (lav) og 2,4 km^2 (høy). Mengden av THC i sedimentet varierte fra 4 – 16 mg/kg, mens Ba varierte fra 143 - 510 mg/kg. Faunaen ble vurdert å være uforstyrret på alle stasjonene.

Utbredelsen av THC og Ba i sedimentet på Snadd Outer i 2018 er illustrert i Figur 3-47 og tidsutviklingen for THC og Ba i sedimentet er vist i Figur 3-48.



Figur 3-47 Utbredelsen av THC og Ba i sedimentet på Outer Snadd, 2018.



Figur 3-48 Konsentrasjonen av THC og Ba på Outer Snadd over tid.

På bakgrunn av resultatene i 2018 foreslås følgende:

0-90° transekt: Stasjon OUS1-3 ble undersøkt i 2018 og THC>LSC på alle stasjonene. Det er en generell økning av THC sammenliknet med tidligere. Det foreslås å legge til en ny stasjon OUS14 (45/1500m) for å avgrense eventuell forurensing. Faunaen ble vurdert som uforstyrret i 2018 så det foreslås å utelate faunaanalyser på stasjon OUS2 men å beholde faunanalyser på OUS1.

90-180° transekt: Stasjon OUS4 og 5 ble undersøkt i 2018 og THC var på nivå med LSC på OUS4 og <LSC på stasjon OUS5. Det foreslås å beholde samme program i 2021 som i 2018.

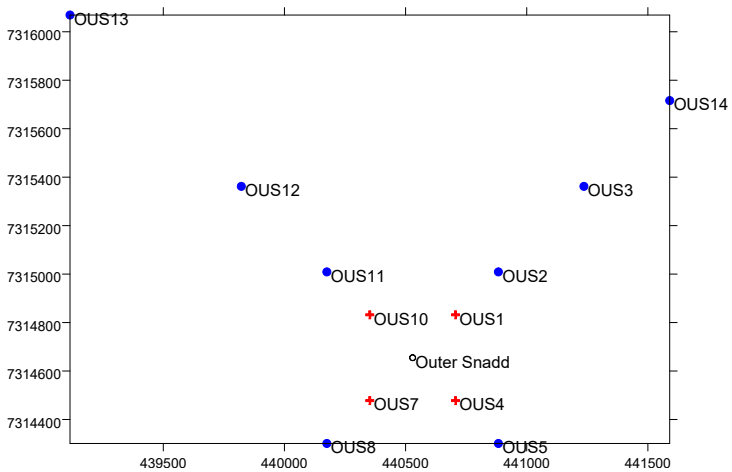
180-270° transekt: Stasjon OUS7 og 8 ble undersøkt i 2018 og THC<LSC på begge stasjonene. Det foreslås å utelate stasjo OUS8 i 2021 og å beholde stasjon OUS7.

270-360° transekt: Stasjon OUS10-12 ble undersøkt i 2018 og THC>LSC på alle stasjonene. Det er en generell økning av THC sammenliknet med tidligere. Det foreslås å legge til en eksisterende stasjon OUS13 (315°/2000 m) for å avgrense eventuell forurensing.

Posisjonene og type og antall analyser for stasjonene som er med er vist i Tabell 3-33 og Figur 3-49. Det analyseres NPD/PAH på alle stasjoner hvor THC eventuelt er 50 mg/kg eller mer.

Tabell 3-33 Stasjonsposisjoner og antall analyser på Outer Snadd, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/PAH
Sentrum A	-	-	-	**440529**	**7314655**	-					
OUS1	45	250	365	440706	7314832	Bio/kjemi	5	1	3	3	
OUS2	45	500	363	440883	7315009	Kjemi			3	3	
OUS3	45	1000	365	441236	7315362	Kjemi			3	3	
OUS14	45	1500		441590	7315716	Kjemi			3	3	
OUS4	135	250	364	440706	7314478	Bio/kjemi	5	1	3	3	
OUS5	135	500	362	440883	7314301	Kjemi			3	3	
OUS7	225	250	364	440352	7314478	Bio/kjemi	5	1	3	3	
OUS8	225	500	364	440175	7314301						
OUS10	315	250	362	440352	7314832	Bio/kjemi	5	1	3	3	3
OUS11	315	500	365	440175	7315009	Kjemi			3	3	3
OUS12	315	1000	361	439822	7315362	Kjemi			3	3	
OUS13	315	2000	368	439115	7316069	Kjemi			3	3	
Sum							**20**	**4**	**33**	**33**	**6**
Ant stasjoner							**4**	**4**	**11**	**11**	**2**
THC>LSC											
Utgår											
Tas inn											



Figur 3-49 Stasjonskart for Outer Snadd, 2021. Røde kryss:Biologi&kjemi stasjoner, blå sirkler:Kjemistasjoner.

3.19 Ærfugl

Ærfuglfeltet, inkludert Snadd Outer, er et gass/kondensatfelt, nesten 60 km langt og bare 2-3 km bredt, lokalisert nær Skarv FPSO, ca. 210 km vest for Sandnessjøen. Ærfugl blir utviklet i to faser. Den første fasen inkluderer fire nye produksjonsbrønner i den sørlige delen av feltet forbundet med Skarv FPSO. Det er utplassert 3 templater samt rørledning og umbilical på Ærfugl, fase 1. Den 4. brønnen benytter gammel infrastruktur på Idun. Produksjonstart fra de 4 første brønnene var i 2020.

Fase 2 benytter gammel infrastruktur på Snadd Outer som vil inngå i Ærfugl i tillegg til et ny templat. AkerBP er operatør.

Det ble gjennomført en grunnlagsundersøkelse i 2018 hvor det ble undersøkt aksekors rundt 3 mulige lokaliteter for brønnene, tilsammen 39 stasjoner (3*13).

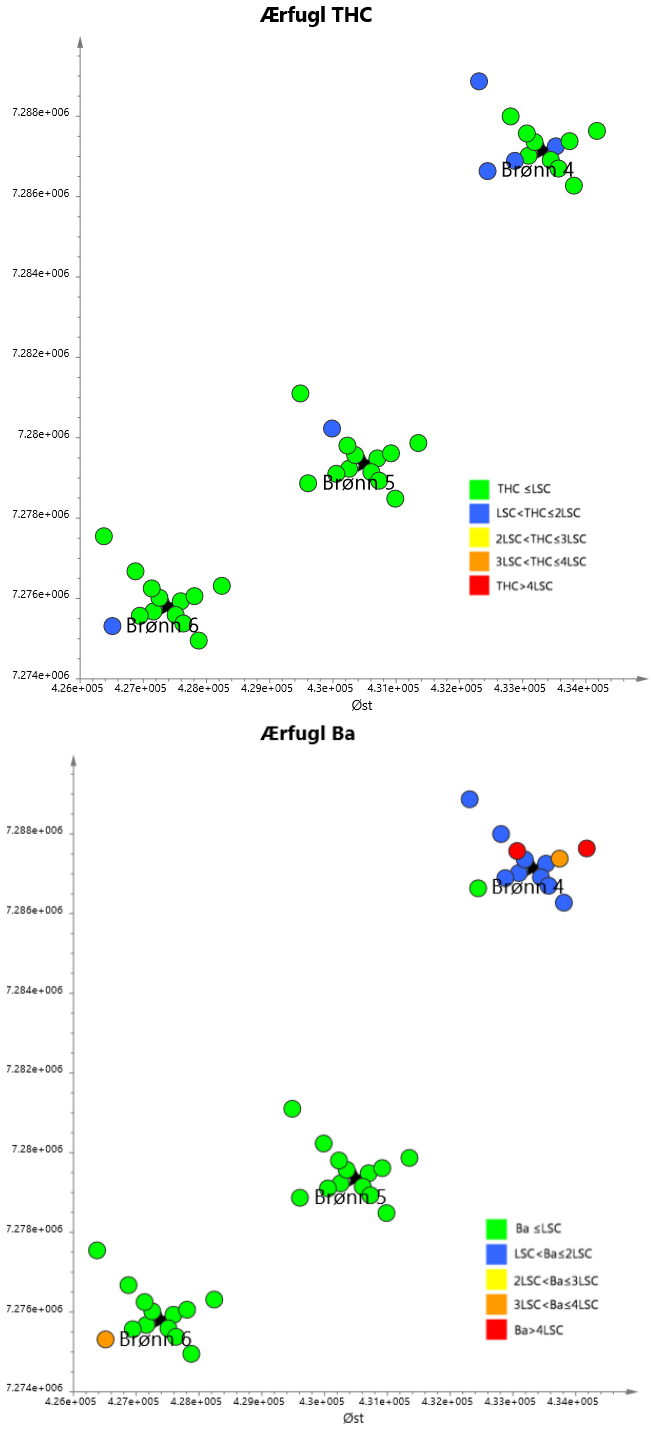
Opplysninger om den senere tids bore- og utslippsaktivitet på Ærfugl er oppsummert i Tabell 3-34.

Tabell 3-34 Opplysninger om den senere tids bore- og utslippsaktivitet på Ærfugl.

Ærfugl	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	4	0
Utslipp (tonn)			
Baritt	0	0	0
Borekaks	0	2688	0
Vannbasert borevæske	0	5936	0
Sementeringskjemikalier	0	149.5	2.8
Kompletteringskjemikalier	0	0	422
Olje i produsert vann/forurenset vann	0	0	0
Uhellsutslipp (m^3)			
Vannbasert borevæske	0	0	0
Oljebasert borevæske	0	0	1.3
Andre oljeutslipp/ lekkasjer	0	0	0

Mengden av THC i sedimentet varierte fra 3 – 11 mg/kg, mens Ba varierte fra 123 - 1798 mg/kg. Faunaen ble vurdert å være uforstyrret på alle stasjonene.

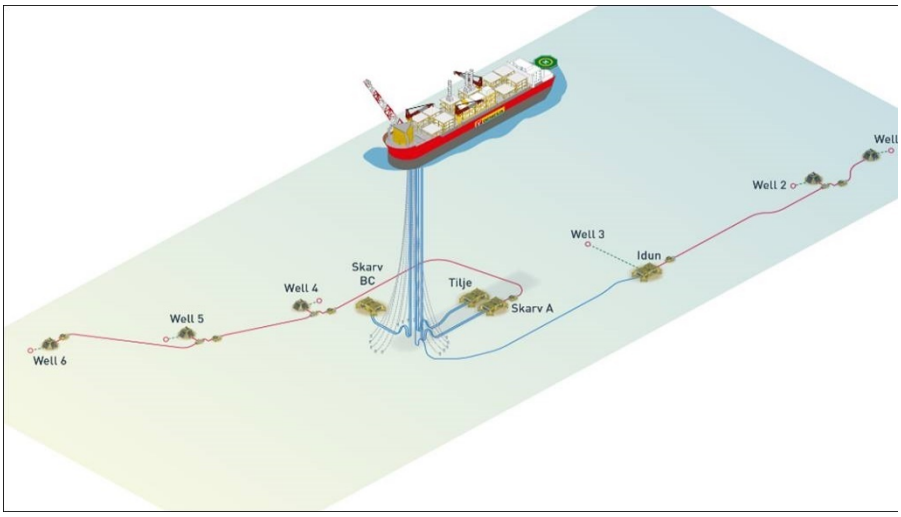
Utbredelsen av THC og Ba i sedimentet på Ærfugl i 2018 er illustrert i Figur 3-50.



Figur 3-50 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Ærfugl, 2018.

Etter avtale med Aker BP er det blitt enighet om å undersøke 2 brønner i 2021, henholdsvis G1-H (Brønn 1) og H-1H (Brønn 2) samt oppfølgende undersøkelse på brønnene undersøkt i 2018 (brønn 4,5 og 6). Brønn 3 er dekket av eksisterende infrastruktur på Idun.

Det er gjort grundige kartlegginger av koraller med konsekvensvurderinger og dette trenger ikke være med i programmet.

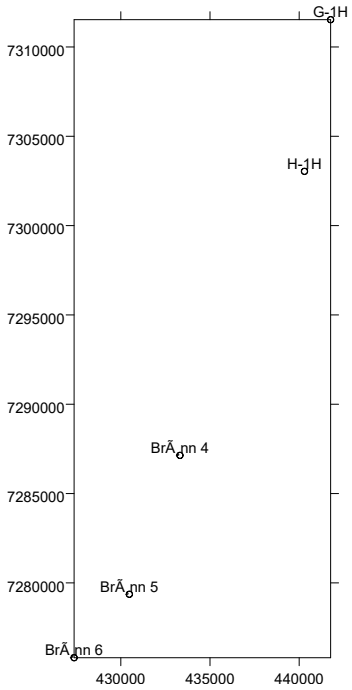


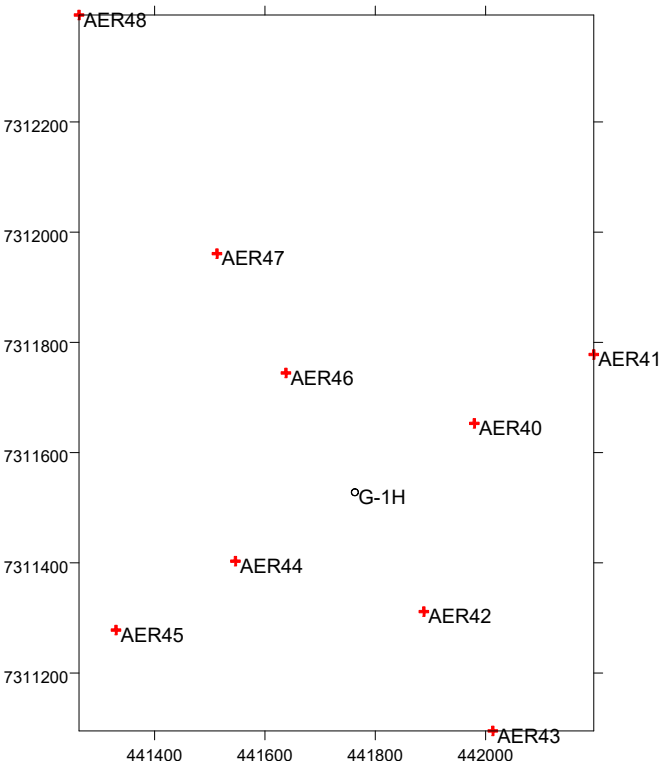
Figur 3-51 Oversikt brønner Ærfugl.Brønn 1 og 2 undersøkes i 2021.

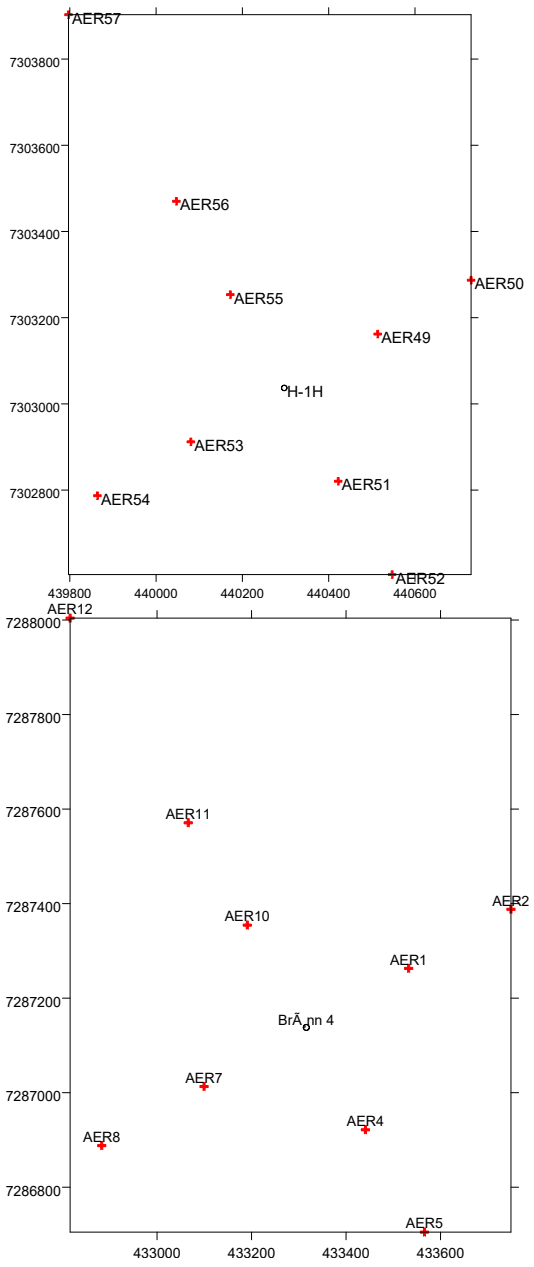
Tabell 3-35 Stasjonsposisjoner og antall analyser på Ærfugl, 2021 (ED50 UTM sone 32).

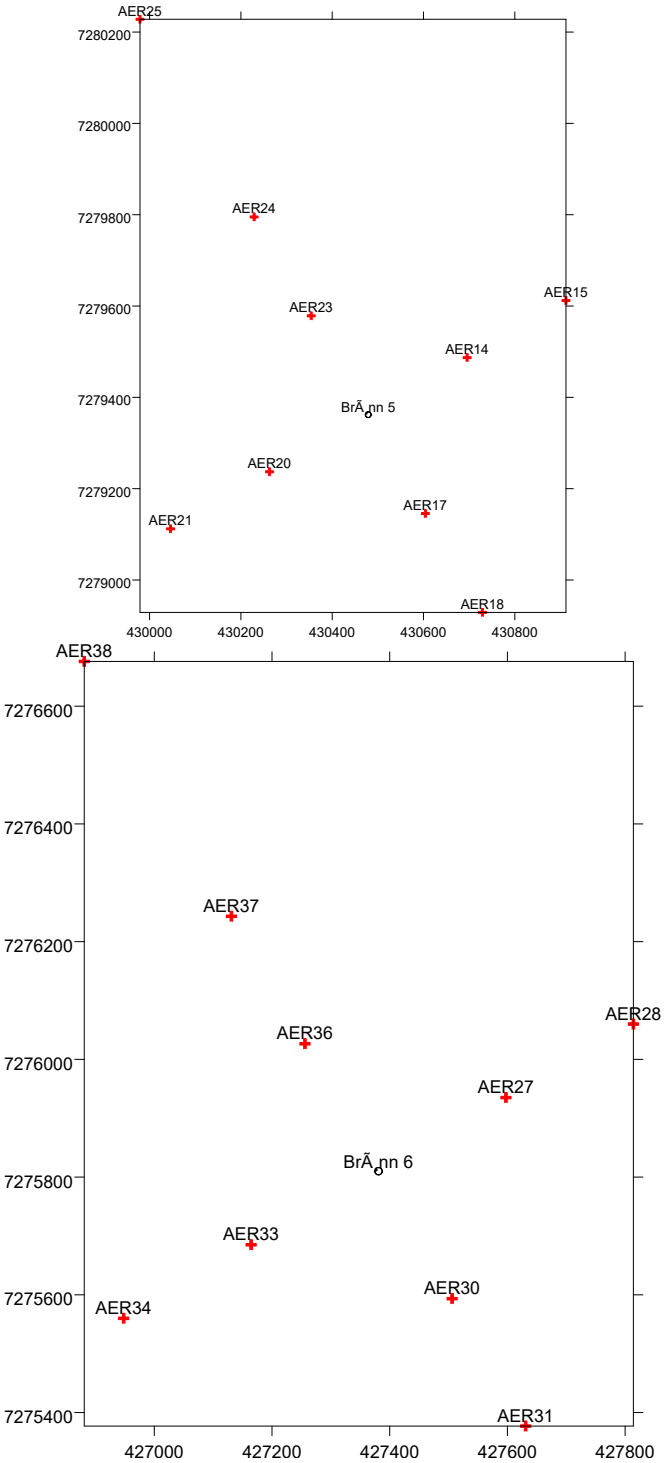
St. nr.	Retn.	Avst.	Dyp	UTM Øst	UTM Nord	Merknad	Bio	Korn/TOM	THC	Met.	NPD/PAH
Ærfugl (brønn 4)				**433316**	**7287138**						
AER1	60	250		433533	7287263		5	1	3	3	3
AER2	60	500		433749	7287388		5	1	3	3	3
AER3	60	1000		434182	7287638						
AER4	150	250		433441	7286921		5	1	3	3	3
AER5	150	500		433566	7286705		5	1	3	3	3
AER6	150	1000		433816	7286272						
AER7	240	250		433099	7287013		5	1	3	3	3
AER8	240	500		432883	7286888		5	1	3	3	3
AER9	240	1000		432450	7286638						
AER10	330	250		433191	7287355		5	1	3	3	3
AER11	330	500		433066	7287571		5	1	3	3	3
AER12	330	1000		432816	7288004		5	1	3	3	3
AER13	330	2000		432316	7288870						
Ærfugl (brønn 5)				**430479**	**7279362**						
AER14	60	250		430696	7279487		5	1	3	3	3
AER15	60	500		430912	7279612		5	1	3	3	3
AER16	60	1000		431345	7279862						
AER17	150	250		430604	7279145		5	1	3	3	3
AER18	150	500		430729	7278929		5	1	3	3	3
AER19	150	1000		430979	7278496						
AER20	240	250		430262	7279237		5	1	3	3	3
AER21	240	500		430046	7279112		5	1	3	3	3
AER22	240	1000		429613	7278862						
AER23	330	250		430354	7279579		5	1	3	3	3
AER24	330	500		430229	7279795		5	1	3	3	3

AER25	330	1000		429979	7280228		5	1	3	3	3
AER26	330	2000		429479	7281094						
Ærfugl (brønn 6)				**427381**	**7275810**						
AER27	60	250		427598	7275935		5	1	3	3	3
AER28	60	500		427814	7276060		5	1	3	3	3
AER29	60	1000		428247	7276310						
AER30	150	250		427506	7275593		5	1	3	3	3
AER31	150	500		427631	7275377		5	1	3	3	3
AER32	150	1000		427881	7274944						
AER33	240	250		427164	7275685		5	1	3	3	3
AER34	240	500		426948	7275560		5	1	3	3	3
AER35	240	1000		426515	7275310						
AER36	330	250		427256	7276027		5	1	3	3	3
AER37	330	500		427131	7276243		5	1	3	3	3
AER38	330	1000		426881	7276676		5	1	3	3	3
AER39	330	2000		426381	7277542						
G1-H (1)	**-**	**-**	**-**	**441763**	**7311528**	**-**					
AER40	60	250		441980	7311653		5	1	3	3	3
AER41	60	500		442196	7311778		5	1	3	3	3
AER42	150	250		441888	7311311		5	1	3	3	3
AER43	150	500		442013	7311095		5	1	3	3	3
AER44	240	250		441546	7311403		5	1	3	3	3
AER45	240	500		441330	7311278		5	1	3	3	3
AER46	330	250		441638	7311745		5	1	3	3	3
AER47	330	500		441513	7311961		5	1	3	3	3
AER48	330	1000		441263	7312394		5	1	3	3	3
H1-H (2)				**440297**	**7303037**						
AER49	60	250		440514	7303162		5	1	3	3	3
AER50	60	500		440730	7303287		5	1	3	3	3
AER51	150	250		440422	7302820		5	1	3	3	3
AER52	150	500		440547	7302604		5	1	3	3	3
AER53	240	250		440080	7302912		5	1	3	3	3
AER54	240	500		439864	7302787		5	1	3	3	3
AER55	330	250		440172	7303254		5	1	3	3	3
AER56	330	500		440047	7303470		5	1	3	3	3
AER57	330	1000		439797	7303903		5	1	3	3	3
Sum							**225**	**45**	**135**	**135**	**135**
Ant stasjoner							**45**	**45**	**45**	**45**	**45**
THC>LSC											
Utgår											
Tas inn											


G-1H
7310000
7305000
H-1H
7300000
7295000
7290000
BrÃ¸nn 4
7285000
7280000
BrÃ¸nn 5
BrÃ¸nn 6
430000
435000
440000


AER48
7312200
7312000
AER47
7311800
AER41
AER46
AER40
7311600
G-1H
7311400
AER44
AER42
AER45
7311200
AER43
441400
441600
441800
442000


AER57
7303800
7303600
AER56
7303400
AER50
AER55
7303200
AER49
H-1H
7303000
AER53
AER51
7302800
AER54
AER52
439800
440000
440200
440400
440600
AER12
7288000
7287800
AER11
7287600
AER2
7287400
AER10
AER1
7287200
BrÃ¸nn 4
AER7
7287000
AER4
AER8
7286800
AER5
433000
433200
433400
433600



Figur 3-52 Stasjonsnett for undersøkelsen på Ærfugl, 2021. Øverst: Oversikt over rammene som er inkludert. Røde kryss: Biologi&kjemi stasjoner.

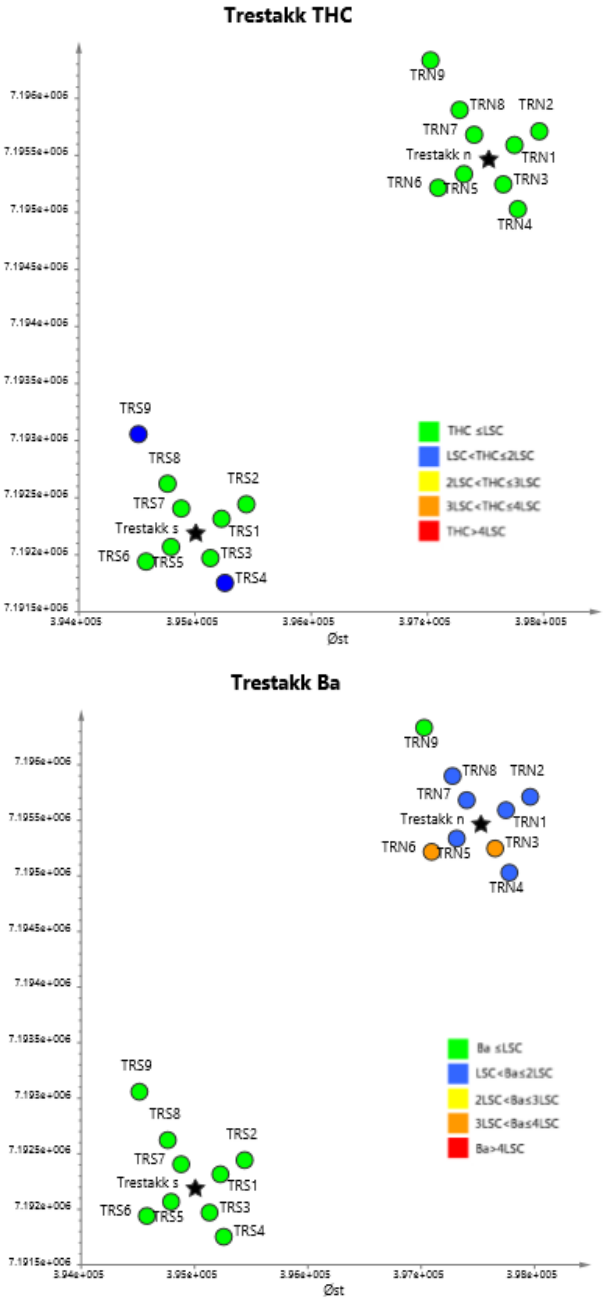
3.20 Trestakk

Trestakk ligger sørvest for Tyrihans, operatør er Equinor. Det ble gjennomført en grunnlagsundersøkelse på Trestakk nord og sør i 2018.

Opplysninger om den senere tids bore- og utslippsaktivitet på Trestakk er oppsummert under Åsgard i Kapittel 3.7.

THC innholdet i sedimentet på Trestakk varierte mellom 3 og 9 mg/kg, mens Ba varierte mellom 166 og 1039 mg/kg. Faunaen ble vurdert å være sunn og uforstyrret på alle stasjonene.

Utbredelsen av THC og Ba i sedimentet i 2018 er vist i Figur 3-53.



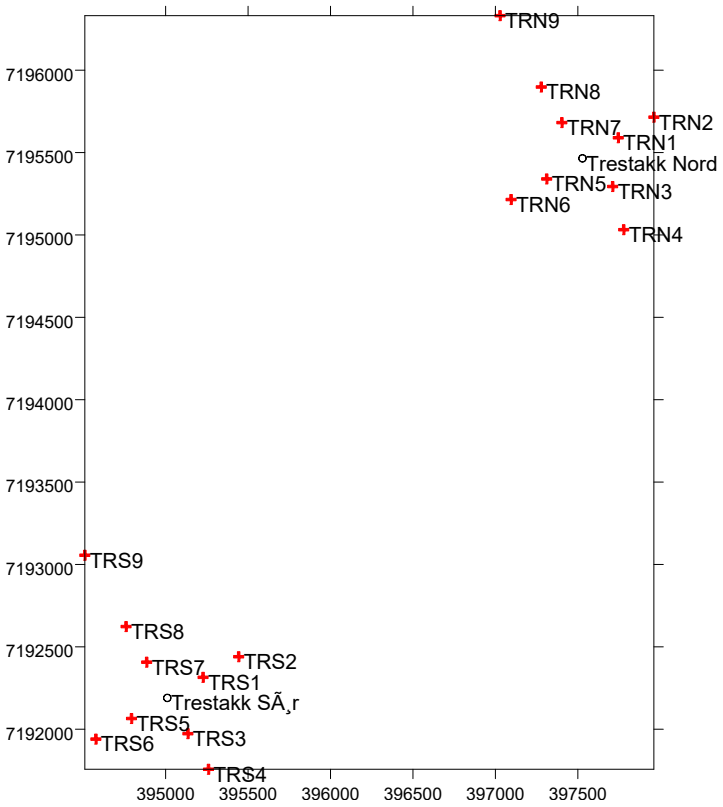
Figur 3-53 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Trestakk nord og sør, 2018.

Samme overvåkingsprogram i 2021 som i 2018 (første gangs overvåking).

Tabell 3-36 Stasjonsposisjoner og antall analyser på Trestakk Nord, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/PAH
Trestakk Nord	**0**	**0**	**397528**	**7195465**						
TRN1	60	250	397745	7195590	Bio/kjemi	5	1	3	3	3
TRN2	60	500	397961	7195715	Bio/kjemi	5	1	3	3	3
TRN3[1)]	133	250	397711	7195294	Bio/kjemi	5	1	3	3	
TRN4	150	500	397778	7195032	Bio/kjemi	5	1	3	3	
TRN5	240	250	397311	7195340	Bio/kjemi	5	1	3	3	
TRN6	240	500	397095	7195215	Bio/kjemi	5	1	3	3	
TRN7	330	250	397403	7195682	Bio/kjemi	5	1	3	3	
TRN8	330	500	397278	7195898	Bio/kjemi	5	1	3	3	
TRN9	330	1000	397028	7196331	Bio/kjemi	5	1	3	3	
Trestakk Sør	**0**	**0**	**395010**	**7192190**						
TRS1	60	250	395227	7192315	Bio/kjemi	5	1	3	3	3
TRS2	60	500	395443	7192440	Bio/kjemi	5	1	3	3	3
TRS3	150	250	395135	7191973	Bio/kjemi	5	1	3	3	
TRS4	150	500	395260	7191757	Bio/kjemi	5	1	3	3	
TRS5	240	250	394793	7192065	Bio/kjemi	5	1	3	3	
TRS6	240	500	394577	7191940	Bio/kjemi	5	1	3	3	
TRS7	330	250	394885	7192407	Bio/kjemi	5	1	3	3	
TRS8	330	500	394760	7192623	Bio/kjemi	5	1	3	3	
TRS9	330	1000	394510	7193056	Bio/kjemi	5	1	3	3	
Sum						**90**	**18**	**54**	**54**	**12**
Ant. Stasjoner						**18**	**18**	**18**	**18**	**4**
Ba>2*LSC										
THC > LSC										

1) Flyttet i 2018.



Figur 3-54 Stasjonskart for Trestakk, 2021. Røde kryss:Biologi&kjemi stasjoner.

3.21 Fenja

Operatører på feltet er VNG. Det ble gjennomført en grunnlagsundersøkelse i 2018 som tok utgangspunkt et aksekors som lå midt mellom produksjons- og injeksjontemplatet som er lokalisert 150 m fra hverandre. Det har ikke vært aktivitet på Fenja siden 2018 og feltet inkluderes ikke i undersøkelsen i 2021.

3.22 Maria

Wintershall er operatør på Maria feltet. Utslippshirstorikk er presentert i Tabell 3-37. Grunnlagsundersøkelsen ble gjennomført i 2012 og første gangs overvåking i 2018.

Tabell 3-37 Utslippsdata Maria.

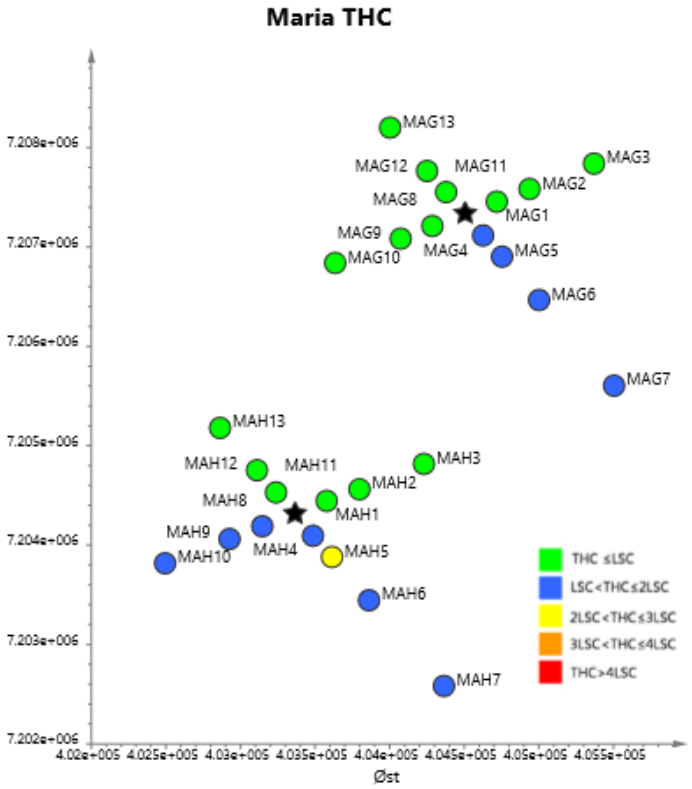
Maria	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	1	1	2
Utslipp (tonn)			
Baritt			
Borekaks	0	698	0
Vannbasert borevæske	0	953	0
Sementeringskjemikalier	0	952	0
Kompletteringskjemikalier	0.8	40	3.3
Olje i produsert vann/forurenset vann	266	0	221
Uhellsutslipp (m^3)	0	0	0
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer	0	0	0

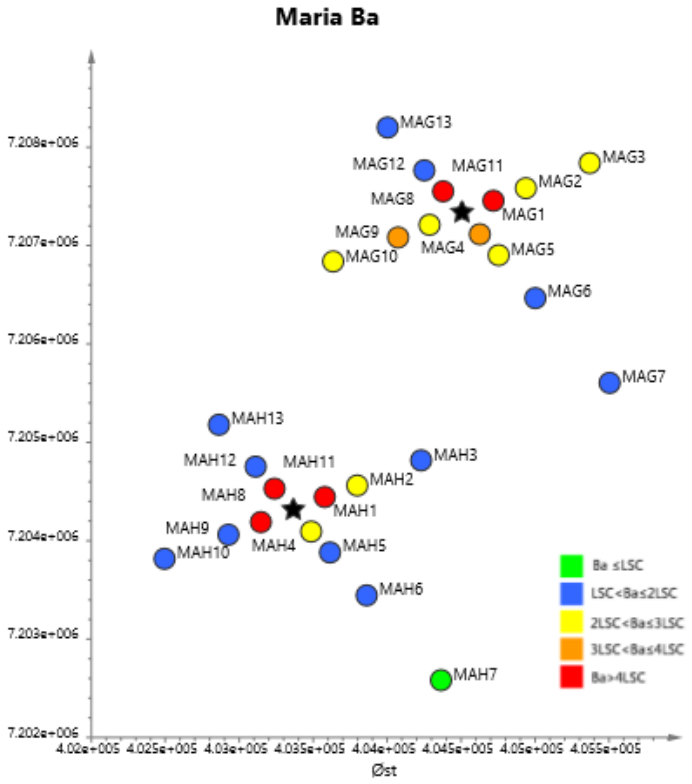
THC innholdet i sedimentet på Maria varierte mellom 5 og 18 mg/kg, mens Ba varierte mellom 144 og 2127 mg/kg. Faunaen ble vurdert å være uforstyrret på de undersøkte stasjonene. Kontaminert areal på feltet ble estimert til 2,2 km^2 (lav) til 7,5 km^2 (høy) rundt H rammen og mellom 0,9 km^2 (lav) og 1,6 km^2 (høy) for G rammen.

Utbredelsen av THC og Ba i sedimentet i 2018 er vist i Figur 3-55.

G-ramme: Alle stasjoner i 135 graders transekt hadde forhøyde THC verdier i 2018. De nærmeste stasjonene hadde også forhøyede Ba verdier.

H-ramme: 135 og 240 graders stasjoner hadde forhøyede THC verdier i 2018. Ba verdier var forhøyet på de nærmeste stasjoner.





Figur 3-55 Utbredelsen av THC (øverst) og Ba (nederst) i sedimentet på Maria, 2018.

På bakgrunn av resultatene i 2018 foreslås følgende:

Maria G:

0-90° transekt: Stasjon MAG1-3 ble undersøkt i 2018 og THC<LSC på alle stasjonene. Det foreslås å utelate stasjon MAG3 i 2021 samt å bare undersøke fauna på innerste stasjon (MAG1).

90-180° transekt: Stasjon MAG4-7 ble undersøkt i 2018 og THC>LSC på alle stasjonene. Det foreslås å beholde samme program i 2021 men å bare ta faunanalyser på de to innerste stasjonene da faunaen ble vurdert som uforstyrret i 2018.

180-270° transekt: Stasjon MAG8-10 ble undersøkt i 2018 og THC<LSC på alle stasjonene. Det foreslås å utelate stasjon MAG10 i 2021 samt å bare undersøke fauna på innerste stasjon (MAG8).

270-360° transekt: Stasjon MAG11-13 ble undersøkt i 2018 og THC<LSC på alle stasjonene. Det foreslås å utelate stasjon MAG13 i 2021 samt å bare undersøke fauna på innerste stasjon (MAG11).

Maria H:

0-90° transekt: Stasjon MAH1-3 ble undersøkt i 2018 og THC<LSC på alle stasjonene. Det foreslås å utelate stasjon MAG3 i 2021 samt å bare undersøke fauna på innerste stasjon (MAG1).

90-180° transekt: Stasjon MAH4-7 ble undersøkt i 2018 og THC>LSC på alle stasjonene. Det foreslås å beholde samme program i 2021 men å bare ta faunanalyser på de to innerste stasjonene da faunaen ble vurdert som uforstyrret i 2018.

180-270° transekt: Stasjon MAH8-10 ble undersøkt i 2018 og THC>LSC på alle stasjonene. Det foreslås å gjennomføre samme program i 2021 men bare undersøke fauna på innerste stasjon.

270-360° transekt: Stasjon MAH11-13 ble undersøkt i 2018 og THC<LSC på alle stasjonene. Det foreslås å utelate stasjon MAG13 i 2021 samt å bare undersøke fauna på innerste stasjon (MAG11).

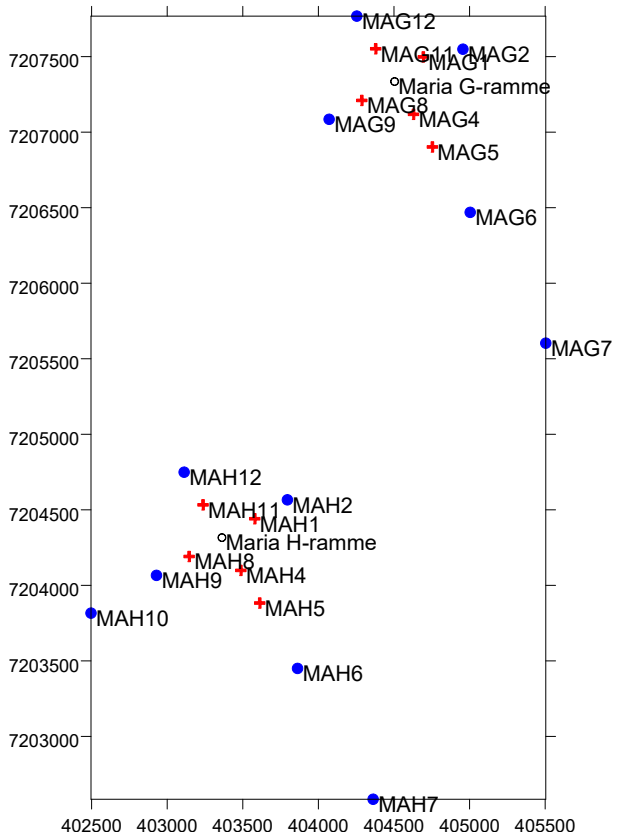
Stasjons- og analyseinformasjon for 2021 er vist i tabellen under. Stasjoner hvor det viser seg at THC er 50 mg/kg eller mer analyseres også for NPD/PAH.

Tabell 3-38 Stasjonsposisjoner og antall analyser på Maria, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
G-ramme	**0**	**0**		**404504**	**7207335**						
MAG1[1)]	49	250	306	404694	7207498	Bio/kjemi	5	1	3	3	3
MAG2[1)]	65	500	305	404956	7207549	Kjemi			3	3	3
MAG3	60	1000	305	405370	7207835						
MAG4	150	250	307	404629	7207118	Bio/kjemi	5	1	3	3	
MAG5	150	500	311	404754	7206902	Bio/kjemi	5	1	3	3	
MAG6	150	1000	318	405004	7206469	Kjemi			3	3	
MAG7	150	2000	318	405504	7205603	Kjemi			3	3	
MAG8	240	250	314	404287	7207210	Bio/kjemi	5	1	3	3	
MAG9	240	500	310	404071	7207085	Kjemi			3	3	
MAG10	240	1000	310	403638	7206835						
MAG11	330	250	310	404379	7207552	Bio/kjemi	5	1	3	3	
MAG12	330	500	310	404254	7207768	Kjemi			3	3	
MAG13	330	1000	312	404004	7208201						
H-ramme	**0**	**0**		**403362**	**7204316**						

MAH1	60	250	309	403579	7204441	Bio/kjemi	5	1	3	3	3
MAH2	60	500	310	403795	7204566	Kjemi			3	3	3
MAH3	60	1000	309	404228	7204816						
MAH4	150	250	310	403487	7204099	Bio/kjemi	5	1	3	3	
MAH5	150	500	320	403612	7203883	Bio/kjemi	5	1	3	3	
MAH6	150	1000	315	403862	7203450	Kjemi			3	3	
MAH7	150	2000	311	404362	7202584	Kjemi			3	3	
MAH8	240	250	310	403145	7204191	Bio/kjemi	5	1	3	3	
MAH9	240	500	312	402929	7204066	Kjemi			3	3	
MAH10	240	1000	312	402496	7203816	Kjemi			3	3	
MAH11	330	250	315	403237	7204533	Bio/kjemi	5	1	3	3	
MAH12	330	500	311	403112	7204749	Bio/kjemi			3	3	
MAH13	330	1000	313	402862	7205182						
Sum							**50**	**10**	**63**	**63**	**12**
Ant. Stasjoner							**10**	**10**	**21**	**21**	**4**
THC>LSC											
Ba>2*LSC											
THC >LSC & Ba>2LSC											
Tas inn											
Utgår											

1) Flyttet i 2018.



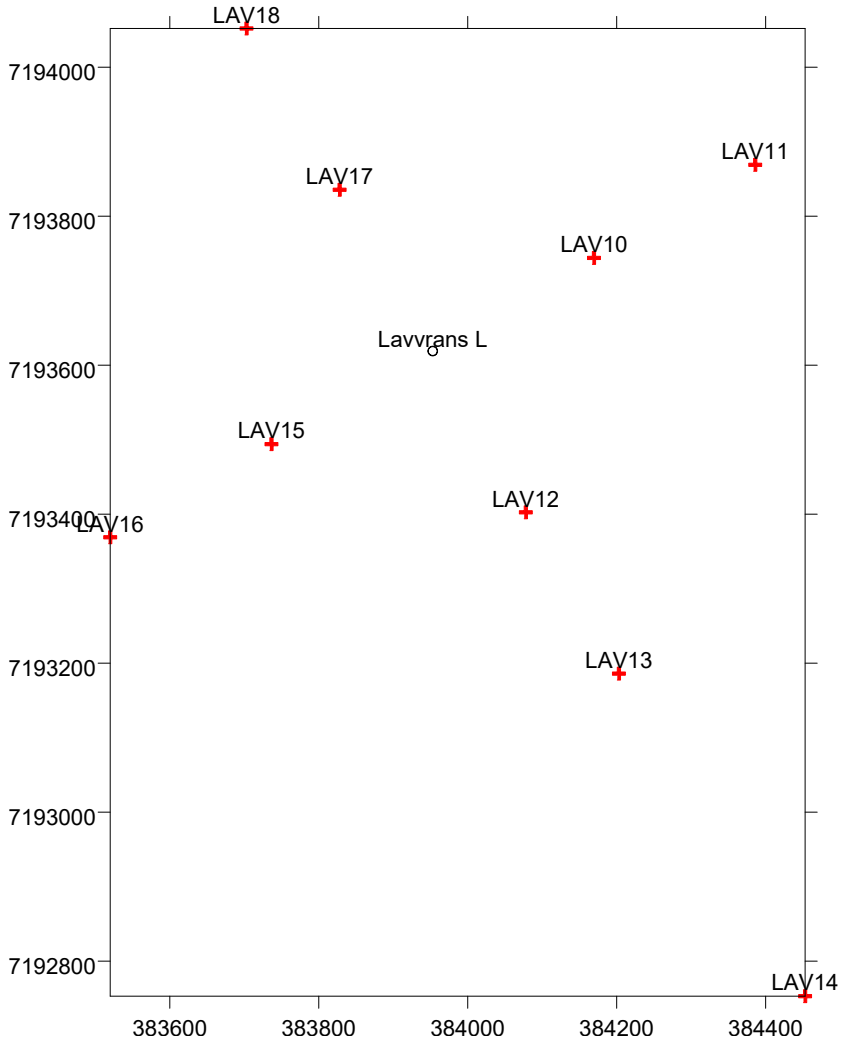
Figur 3-56 Sedimentstasjoner på Maria.

3.23 Lavrans L

Lavrans A (PL 199) ligger i Region VI i blokk 6406/2-1 sørøst av Kristin. Equinor er operatør. Det ble utført en grunnlagsundersøkelse før produksjonsboring på feltet i 2018 hvor 9 stasjoner ble undersøkt. Spud er flyttet siden 2018 og Equonir vil gjennomføre en ny grunnlagsundersøkelse på Lavrans.

Tabell 3-39 Stasjonsposisjoner og antall analyser på Lavrans, 2021 (ED50 UTM sone 32).

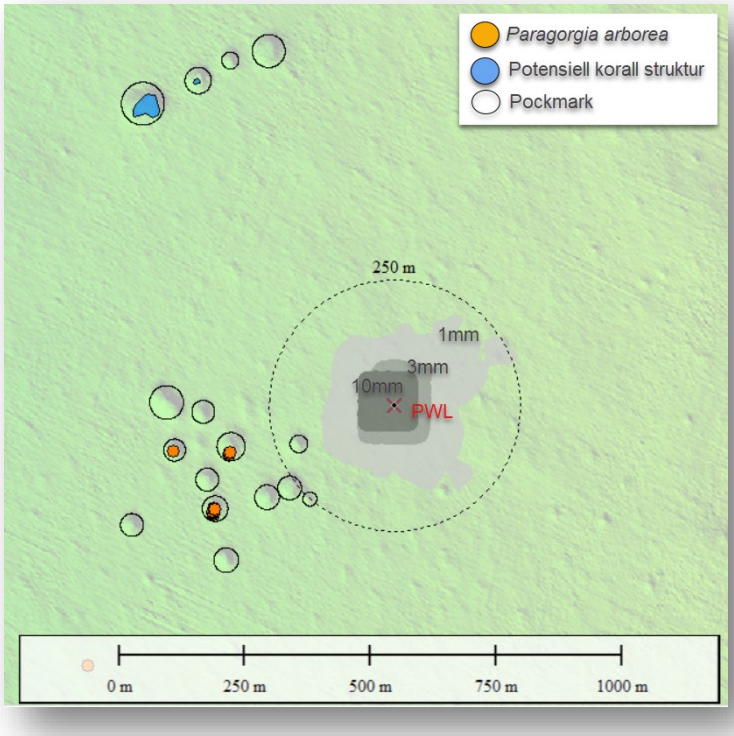
St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Lavvrans L				**383953**	**7193619**						
LAV10	60	250		384170	7193744		5	1	3	3	3
LAV11	60	500		384386	7193869		5	1	3	3	3
LAV12	150	250		384078	7193402		5	1	3	3	3
LAV13	150	500		384203	7193186		5	1	3	3	3
LAV14	150	1000		384453	7192753		5	1	3	3	3
LAV15	240	250		383736	7193494		5	1	3	3	3
LAV16	240	500		383520	7193369		5	1	3	3	3
LAV17	330	250		383828	7193836		5	1	3	3	3
LAV18	330	500		383703	7194052		5	1	3	3	3
Sum							**45**	**9**	**27**	**27**	**27**
Ant. Stasjoner							**9**	**9**	**9**	**9**	**9**



Figur 3-57 Sedimentstasjoner på Lavrans.

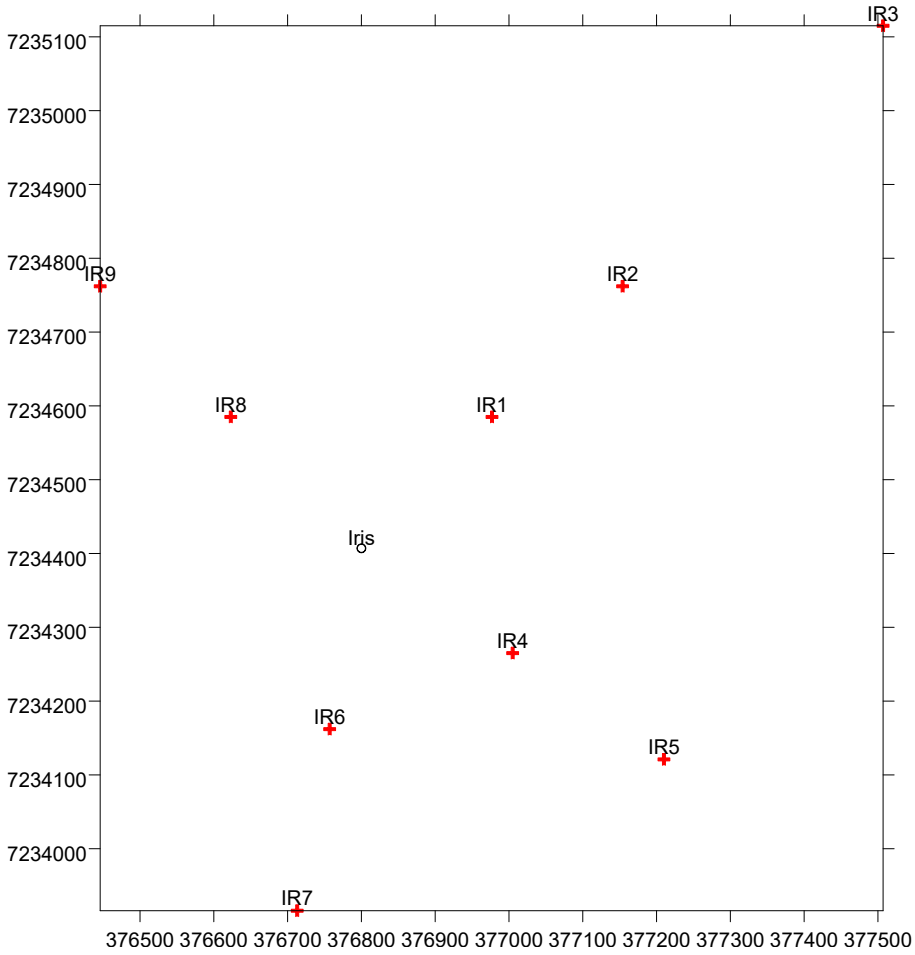
3.24 Iris

OMV er operatør på Iris. Iris er ligger i Norskehavet i allerede kjente områder med høy tetthet av kaldtvannskoraller, se figur under. Det skal gjennomføres en grunnlagsundersøkelse med 9 stasjoner.



Tabell 3-40 Planalgte posisjoner og antall analyser på Iris, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Iris				**376800**	**7234407**						
IR1	45	250		376977	7234585		5	1	3	3	3
IR2	45	500		377154	7234762		5	1	3	3	3
IR3	45	1000		377507	7235115		5	1	3	3	3
IR4	125	250		377005	7234265		5	1	3	3	3
IR5	125	500		377210	7234121		5	1	3	3	3
IR6	190	250		376757	7234162		5	1	3	3	3
IR7	190	500		376713	7233916		5	1	3	3	3
IR8	315	250		376623	7234585		5	1	3	3	3
IR9	315	500		376446	7234762		5	1	3	3	3
Sum							**45**	**9**	**27**	**27**	**27**
Ant. Stasjoner							**9**	**9**	**9**	**9**	**9**



Figur 3-58 Sedimentstasjoner på Iris.

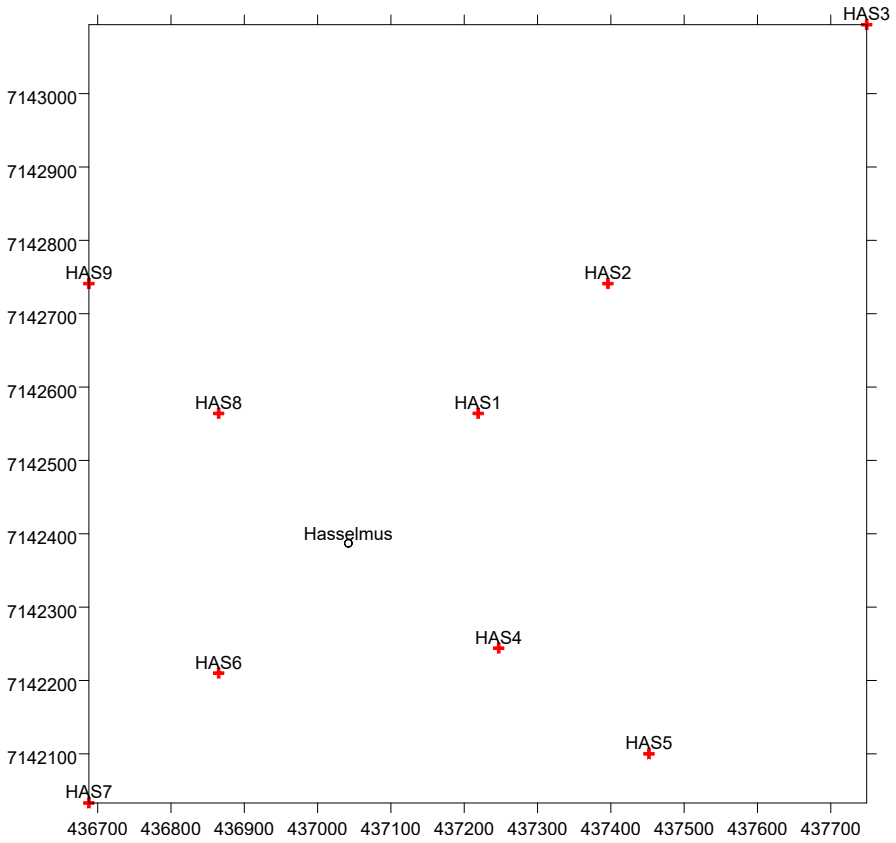
3.25 Hasselmus

OKEA er operatør på Hasselmus. Det skal gjennomføres en grunnlagsundersøkelse.

Tabell 3-41 Planalgte posisjoner og antall analyser på Hasselmus, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Hasselmus				**376800**	**7234407**						
HAS1	45	250		437219	7142564		5	1	3	3	3
HAS2	45	500		437396	7142741		5	1	3	3	3
HAS3	45	1000		437749	7143094		5	1	3	3	3
HAS4	125	250		437247	7142244		5	1	3	3	3
HAS5	125	500		437452	7142100		5	1	3	3	3
HAS6	225	250		436865	7142210		5	1	3	3	3
HAS7	225	500		436688	7142033		5	1	3	3	3
HAS8	315	250		436865	7142564		5	1	3	3	3
HAS9	315	500		436688	7142741		5	1	3	3	3

Sum							**45**	**9**	**27**	**27**	**27**
Ant. Stasjoner							**9**	**9**	**9**	**9**	**9**



Figur 3-59 Sedimentstasjoner på Hasselmus.

3.26 Dvalin

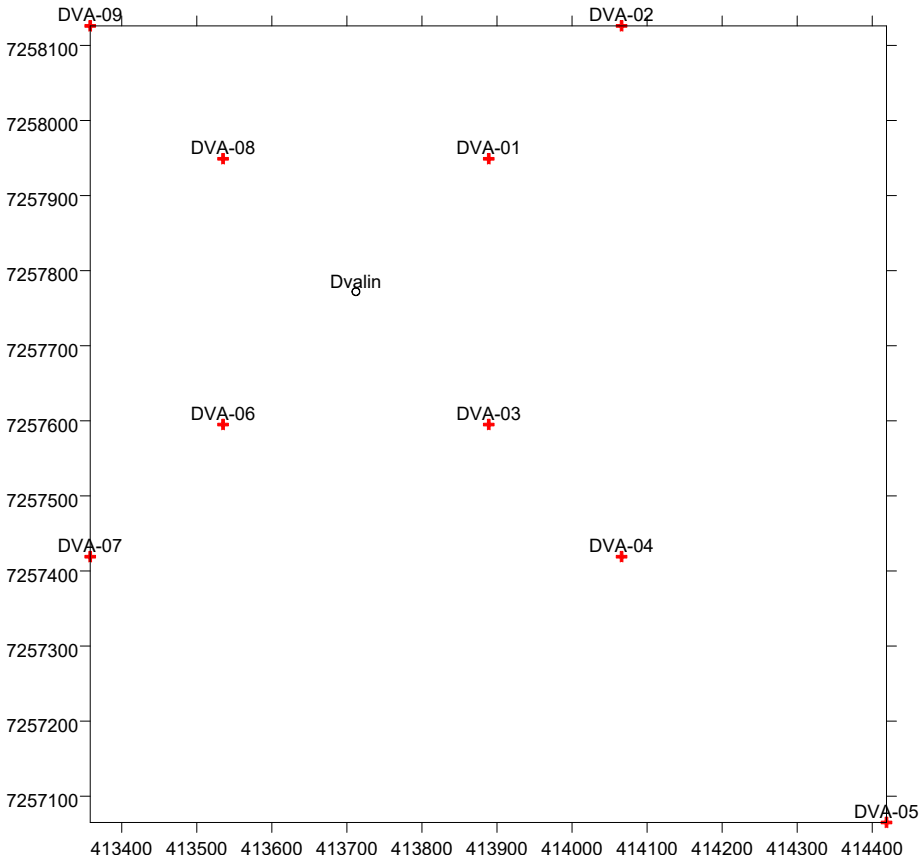
Dvalin (PL 435) ligger i Region VI i blokk 6507/7 omtrent 15 km nordvest av Heidrun. Wintershall er operatør. Det er utført en grunnlagsundersøkelse før produksjonsboring på feltet i 2018. Det er lagt inn ni stasjoner i undersøkelsen. Feltet er inkludert i 2021, første gangs overvåking, så det er samme program som i 2018.

Tabell 3-42 Opplysninger om den senere tids bore- og utslippsaktivitet på Dvalin.

Dvalin	2018	2019	2020
Type utslipp/ aktivitet			
Antall brønner boret	0	2	2
Utslipp (tonn)			
Baritt			
Borekaks	0	1448	0
Vannbasert borevæske	0	4098	0
Sementeringskjemikalier	0	8003	0
Kompletteringskjemikalier	0	443	0.4
Olje i produsert vann/forurenset vann	0	0	426
Uhellsutslipp (m^3)	0	0	0
Vannbasert borevæske			
Oljebasert borevæske			
Andre oljeutslipp/ lekkasjer	0	0	0

Tabell 3-43 Stasjonsposisjoner og antall analyser på Dvalin, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Dvalin				**413712**	**7257772**						
DVA-01	45	250	374	414066	7258126	Bio/kjemi	5	1	3	3	
DVA-02	45	500	370	413889	7257595	Bio/kjemi	5	1	3	3	
DVA-03	135	250	378	414066	7257419	Bio/kjemi	5	1	3	3	3
DVA-04	135	500	380	414419	7257065	Bio/kjemi	5	1	3	3	3
DVA-05	135	1000	375	413535	7257595	Bio/kjemi	5	1	3	3	
DVA-06	225	250	387	413358	7257419	Bio/kjemi	5	1	3	3	
DVA-07	225	500	385	413535	7257949	Bio/kjemi	5	1	3	3	
DVA-08	315	250	385	413358	7258126	Bio/kjemi	5	1	3	3	
DVA-09	315	500	383	413889	7257949	Bio/kjemi	5	1	3	3	
SUM							**45**	**9**	**27**	**27**	**6**
THC>LSC											



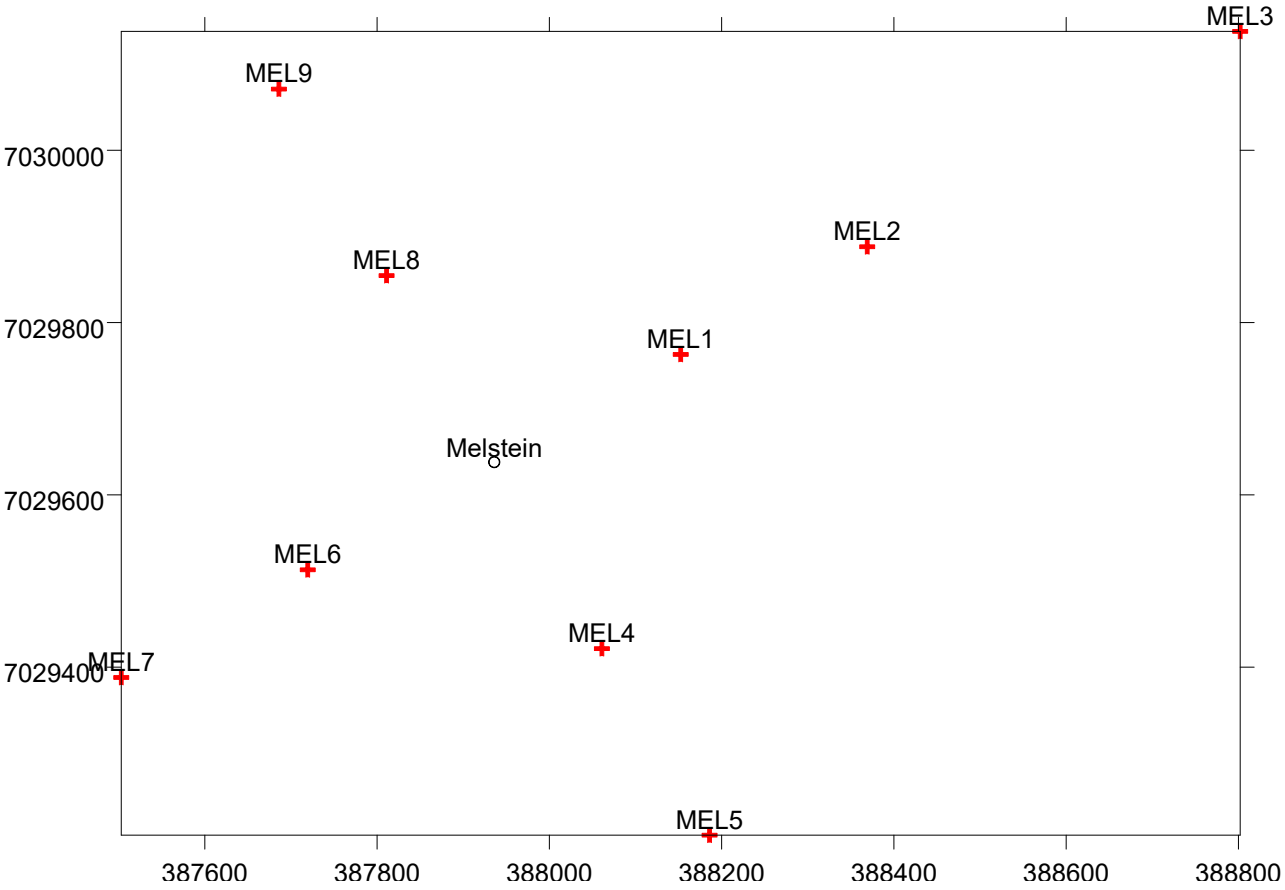
Figur 3-60 Stasjonskart for Dvalin, 2021. Røde kryss:Biologi&kjemi stasjoner.

3.27 Melstein

Det skal gjennomføres en grunnlagsundersøkelse før leteboring på Melstein. Lundin er operatør/ansvarlig. Det er lagt opp til en undersøkelse med 9 stasjoner.

Tabell 3-44 Stasjonsposisjoner og antall analyser på Melstein, 2021 (ED50 UTM sone 32).

St. nr.	Retn.	Avst.	Dyp (m)	UTM Øst	UTM Nord	Merknad	Bio	Korn/ TOM	THC	Met.	NPD/ PAH
Melstein				**387936**	**7029638**						
MEL1	60	250		388153	7029763		5	1	3	3	3
MEL2	60	500		388369	7029888		5	1	3	3	3
MEL3	60	1000		388802	7030138		5	1	3	3	
MEL4	150	250		388061	7029421		5	1	3	3	
MEL5	150	500		388186	7029205		5	1	3	3	
MEL6	240	250		387719	7029513		5	1	3	3	
MEL7	240	500		387503	7029388		5	1	3	3	
MEL8	330	250		387811	7029855		5	1	3	3	
MEL9	330	500		387686	7030071		5	1	3	3	
SUM							**45**	**9**	**27**	**27**	**6**



Figur 3-61 Stasjonskart for Melstein, 2021. Røde kryss:Biologi&kjemi stasjoner.

3.28 Andre felt

Det er tidligere undersøkt felt som ikke er omtalt i dette programmet. En oversikt over disse feltene og med en kort begrunnelse på hvorfor de ikke er inkludert i overvåkingsprogrammet for 2021 er som følger:

Blåveis: Sist undersøkt i 2001 (grunnlag). Ikke utviklet

Fogelberg: Sist undersøkt i 2014. Ingen aktivitet fremtidig utvikling evalueres

Garn Sentral: Sist undersøkt i 2009, nedstengt

Hans: Sist undersøkt i 2006 (letebrønn), ingen aktivitet

Linnorm: Sist undersøkt i 2012. Ingen aktivitet, sansynlig med utbygging men uavklart

Onyx: Sist undersøkt i 2012, ingen aktivitet og utbygging er usannsynlig.

Portrush: Sist undersøkt i 2015, plugget og forlatt

Victoria: Sist undersøkt i 2007. Utbygging usannsynlig

4 TOTAL ANTALL STASJONER/ANALYSER

Totalt antall planlagte analyser er vist i tabellen under. Totalt er 338 stasjoner inkludert i årets program.

Tabell 4-1 Foreløpig antall stasjoner/analyser inkludert i overvåkingsprogrammet for Region 6 2021.

Felt	Bio	Korn&TOC	THC	Met	PAH/NPD	Radio
REG	60	12	36	36	36	3
Alve	20	4	18	18	6	0
Bauge	45	9	27	27	6	0
Kristin	10	2	48	48	18	0
Njord & Nordvestflanken	25	5	36	36	6	0
Norne	0	0	39	39	9	0
Heidrun & Nordflanken	60	12	69	69	12	0
Åsgard	30	6	111	111	18	0
Urd	0	0	15	15	6	0
Tyrihans	0	0	30	30	3	0
Fossekall	0	0	0	0	0	0
Dompap	0	0	0	0	0	0
Mikkel	10	2	12	12	3	0
Draugen	15	3	27	27	15	15
Rogn sør	35	7	27	27	9	0
Garn vest	10	2	15	15	3	0
Marulk	0	0	30	30	9	0
Skarv & Idun	15	3	36	36	9	0
Outer snadd	20	4	33	33	6	0
Ærfugl	225	45	135	135	135	0
Trestakk	90	18	54	54	12	0
Fenja	0	0	0	0	0	0
Maria	50	10	63	63	12	0
Lavrans L	45	9	27	27	27	0
Iris	45	9	27	27	27	0
Hasselmus	45	9	27	27	27	0
Dvalin	45	9	27	27	6	0
Melstein	45	9	27	27	6	0
Sum	**945**	**189**	**996**	**996**	**426**	**18**

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Site Survey at Newt-Barlindåsen

Environmental Habitat Report

Planned Well Locations of 6507/3 Newt and Barlindåsen

Survey Period: 20 August to 11 September 2021

ABP21307 | NPDID 10130 | PL 941 | NCS 6507/03
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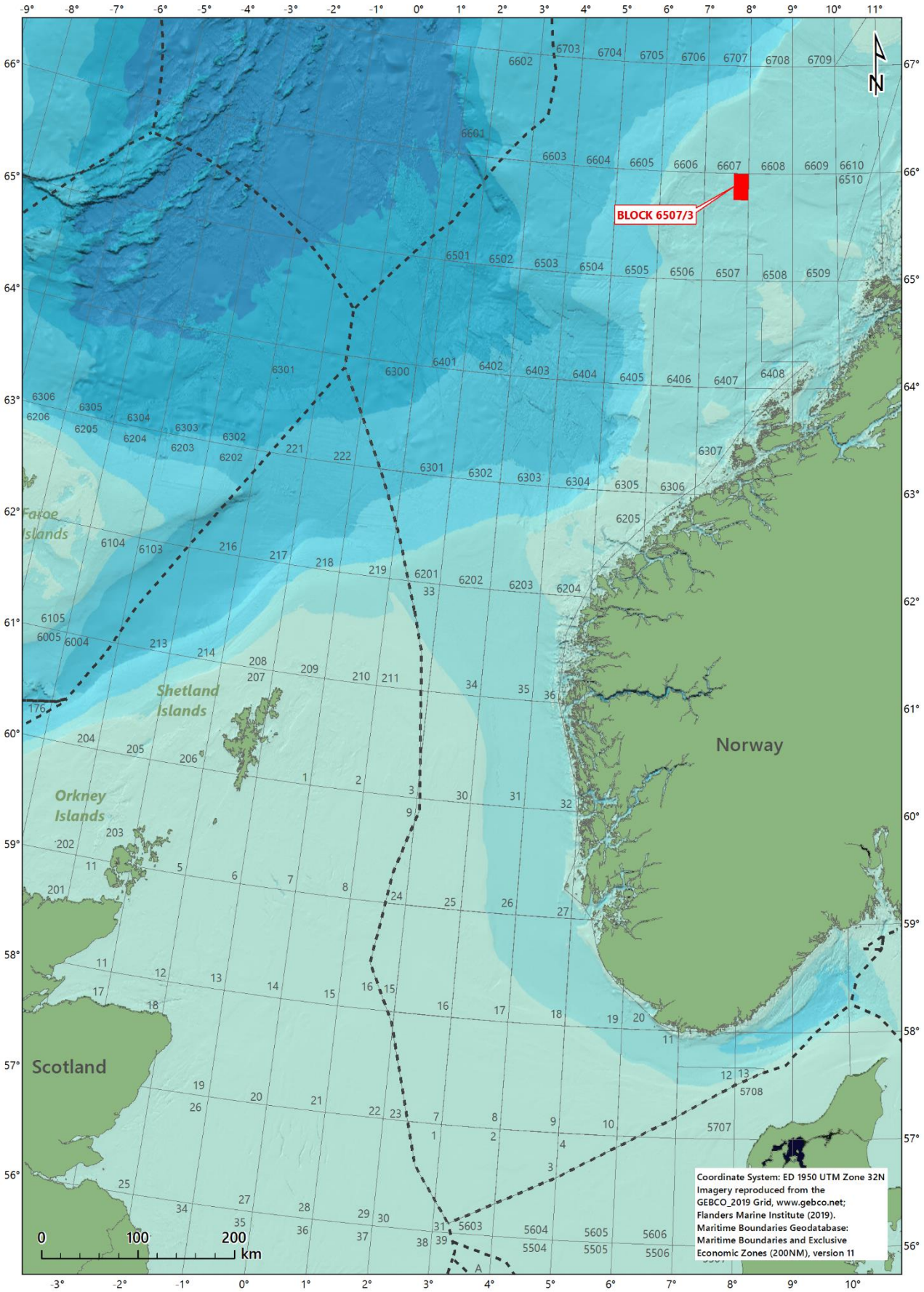
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Document Arrangement

Volume No.	Volume Title
Volume 1	Field Operations Report
Volume 2	Geophysical Interpretation Report
Volume 3	Environmental Habitat Report (this volume)
Volume 4	Geotechnical Report

Frontispiece



Executive Summary

Introduction

On the instruction of Aker BP ASA, Fugro performed a site survey including geophysical, geotechnical and environmental data acquisition, at the Newt and Barlindåsen survey area. The site was located within the Norwegian Continental Shelf (NCS) Block 6507/03 of the Norwegian Sea. Operations were conducted onboard the MV Fugro Meridian during the survey period 20 August to 11 September 2021.

Table S.1 presents the surface coordinates of the planned well locations (PWL) and relief well locations (RWLs).

Table S.1: Planned and relief well locations

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]				
Location	Easting	Northing	Latitude	Longitude
Newt PWL	447 667.1	7 301 339.5	65° 49′ 37.957″ N	007° 51′ 10.187″ E
Barlindåsen SW PWL	448 021.67	7 299 110.67	65° 48' 27.071" N	007° 51' 47.999" E
Newt: NW RWL	447 161.30	7 301 678.87	65° 49' 49.492" N	007° 50' 36.561" E
Newt: SE RWL	448 126.34	7 300 799.68	65° 49' 21.671" N	007° 51' 53.835" E
Barlindåsen SW: RWL NW	447 464.37	7 299 172.55	65° 48' 28.742" N	007° 51' 04.047" E
Barlindåsen SW: RWL SE	448 136.34	7 298 574.72	65° 48'09.832" N	007° 51'577.786" E

Notes
PWL = Planned well location
RWL = Relief well location

Survey Strategy

The environmental survey comprised two 'bow-tie' formations, each comprising three transects, across the Newt and Barlindåsen SW PWLs. These were orientated to investigate features of interest identified from the side scan sonar (SSS) and bathymetry data. Three additional transects were selected within the Newt PWL area, to ground-truth areas of interest within 500 m of the PWL. The most relevant sensitive habitats for the current survey are 'Cold water corals' and 'Coral gardens'. If any such habitats were discovered, a sensitive habitat assessment was carried in accordance with Norwegian guidelines.

Bathymetry and Seabed features

Water depths across the survey area ranged from 343.2 m Mean Sea Level (MSL) in the centre of the survey area to 435.3 m MSL in the south of survey area. Most of the survey area displays medium acoustic reflectivity on the side scan sonar records and is interpreted to comprise of silty, sandy clay with a patchy veneer of sand and occasional gravel. Patches of very high reflectivity coincide with iceberg ploughmarks, depressions, and seabed scars.

Seabed Habitats

Seabed sediments across the survey area comprised gravelly, sandy mud/muddy sand with varying proportions of coarser sediments. This corresponded to the level 3 EUNIS habitats 'Deep-sea mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). The biotope 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631) was observed and coincided with areas of mottled SSS reflectivity particularly on the flanks of iceberg plough marks.

Epifauna associated with mixed substrata included sponges (Porifera including Axinellidae, *Hymedesmia paupertas* and *Mycale lingua*). Other fauna observed included gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobsters (Galatheoidea), sea urchins (*Gracilechinus acutus*) and anemone (*Actinostola callosa*).

Observed fauna associated with the 'Deep-sea mud' habitat was generally sparse. Recorded fauna included sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), squat lobsters (Galatheoidea) and cushion stars (Valvatida) and mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae).

Fauna associated with the 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' biotope included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis*), file shells (*Acesta excavata*), and anemones (Actiniaria including *Actinostola callosa*).

Fish observed in the survey area included saithe (*Pollachius virens*), redfish (Sebastidae) and tusk (*Brosme brosme*).

Potentially Sensitive Habitats or Species

Dead coral framework and coral rubble was observed with the survey area. Living *Desmophyllum pertusum* was observed, although with a low percentage cover and total living front area. Therefore these areas were classified as 'dead'.

Two hard-bottom coral species were recorded during the current survey including *Paragorgia arborea* and *Primnoa resedaeformis*. The classifications of the coral condition ranged from 'single *Paragorgia* on boulder' to 'excellent'. Coral condition classified as 'excellent' was found along transect ABP21307-TR06 262 m from the Barlindåsen SW PWL.

Within the Newt survey area, coral gardens were classified as 'fair', 'good' or 'excellent' when associated with *Desmophyllum pertusum* framework. At all other locations, such as ridge features, coral garden species were recorded as 'single *Paragorgia* on boulder' or 'poor'.

During the current survey, where present, soft-bottom sponges were predominantly recorded as 'rare' (< 1 % cover) with small areas being classified as 'scattered' (1 – 5 % cover). During the current survey, where present, hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover) with small sections (< 25 m in length) were classified as 'common' (5 % to 10 % cover).

To represent the OSPAR habitat 'Deep-sea sponge aggregations' soft-bottom sponges must be classified as 'high' (> 10 % cover) density. Therefore, the sponge communities recorded across the Newt-Barlindåsen survey area do not constitute the OSPAR (2010b) listed habitat 'Deep-sea sponge aggregations'.

The coral species *P. arborea* is currently listed as 'Near threatened' on the Norwegian Red List (NBIC, 2015). Within the family Sebastidae, *S. norvegicus* is listed as 'Endangered' (NBIC, 2015). Redfish were observed but could not be identified to species level. Other taxa recorded in the Newt-Barlindåsen survey area were assessed as 'least concern' or 'not evaluated'.

No other sensitive habitats or species were identified from either the geophysical or photographic data.

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Abbreviations

BSL	Below sea level
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species
CM	Central meridian
CR	Critically endangered
DD	Data deficient
DNV	Det Norske Veritas
ED50	European Datum 1950
EMODnet	European Marine Observation and Data Network
EN	Endangered
EOL	End of line
EPSG	European Petroleum Survey Group
EUNIS	European Nature Information System
GNSS	Global Navigation Satellite System
HD	High definition
IUCN	International Union for the Conservation of Nature
LC	Least concern
LED	Light emitting diode
MBES	Multibeam echosounder
MSL	Mean Sea Level
MV	Motor vessel
NBIC	Norwegian Biodiversity Information Centre
NCS	Norwegian Continental Shelf
NEA	Norwegian Environment Agency
NF	No fix
NME	Norwegian Ministry of Climate and Environment
NT	Near threatened
OEL	Ocean Ecology Limited
OSPAR	Oslo and Paris
PSA	Petroleum Safety Authority
PWL	Planned well location
ROV	Remotely operated vehicle
RWL	Relief well location
SD	Standard definition
SOL	Start of line
SSS	Side scan sonar
UNEP	United Nations Environmental Program
UTC	Coordinated Universal Time

UTM	Universal Transverse Mercator
VU	Vulnerable
WGS 84	World Geodetic System 1984
?	Identification is uncertain

1. Introduction

1.1 General Project Description

On the instruction of Aker BP ASA, Fugro performed a site survey at the Newt and Barlindåsen site. The site was located within the Norwegian Continental Shelf (NCS) Block 6507/03 of the Norwegian Sea. Operations were conducted onboard the MV Fugro Meridian during the survey period 20 August to 11 September 2021.

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Notes PWL = Planned well location RWL = Relief well location				

The Newt and Barlindåsen site survey comprised a geophysical survey, a geotechnical survey and a habitat assessment. This report details the results of the habitat assessment.

Appendix A outlines the guidelines for use of this report.

1.2 Scope of Work

1.2.1 Geophysical Survey

The geophysical survey was carried out to provide information on seabed bathymetry, topography and the stratigraphy of shallow soils to identify any seabed features and potential obstructions which may impede the subsequent drilling campaign. The geophysical survey was also required to facilitate the safe emplacement of a semi-submersible drilling rig.

1.2.2 Environmental Survey

The objective of the environmental survey was to map and characterise vulnerable species and habitats on the seabed in the vicinity of the PWL and nearby areas of interest identified

from the geophysical survey data. If any vulnerable habitats were discovered, a sensitive habitat assessment was to be carried out according to Norwegian guidelines and standards.

1.3 Environmental Legislation

Petroleum activities on the NCS are subject to acts, regulations and management plans with detailed environmental requirements. The Nature Diversity Act, which came into force on 1 July 2009 (Backer, 2009), is a milestone in Norwegian environmental legislation and regulates the management of species and habitat protection. The Nature Diversity Act replaces the 1970 Nature Conservation Act and is based on the 1992 Biodiversity Convention and serves as the legal basis for national implementation of other international instruments (e.g. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the World Heritage Convention and the Ramsar and Berne Conventions).

The national red list is a list of species and habitats that are threatened with extinction, are considered critically endangered, or are naturally rare. The red list is a prerequisite for a knowledge-based management of biodiversity and is one of the criteria used for the selection of species for protection.

The Norwegian government also participates in several initiatives to preserve particularly important habitats and species. Under the Oslo and Paris (OSPAR) Convention, Norway has an international responsibility to safeguard a representative selection of fjord and coastal areas of types that are not present anywhere else in the world, as well as habitats and species listed as threatened or declining by OSPAR within Regions I and II. Norway also ratified the Convention on Biological Diversity (CBD) in 1993 and is participating in the CBDs 'Aichi-target' of at least 10 % of biologically important coastal and marine areas to be conserved by the year 2020.

The specific requirements pertaining to environmental monitoring are presented in Chapters X and XI of the Activities Regulations (Petroleum Safety Authority Norway [PSA], 2020). These requirements deal with the cooperation on and planning of environmental monitoring and baseline surveys, and surveys of benthic habitats and the water column. These chapters are complemented by Section 48 of the Framework Regulations, which requires the operator to monitor and record sufficient data from the external environment to ensure that all pollution generated is detected, mapped and assessed. In 2010, the detailed requirements for environmental monitoring were removed from the Activities Regulations and set out in the dedicated 'Guidelines for environmental monitoring of the petroleum activities on the Norwegian continental shelf', which has recently been updated (Norwegian Environment Agency [NEA], 2020). In 2019, Det Norske Veritas (DNV) issued a handbook to supplement these guidelines by providing information on key species and habitats, such as corals and sponges, and methods for assessing the habitats, impact assessment, mitigation and documentation/monitoring of effects of drilling, anchoring and pipeline construction (DNV, 2019).

In addition, the industry has useful guidelines and best practice documents that have been developed to aid in a coherent industry practice with regards to environmental monitoring on the NCS. Several of these have been initiated by the Norwegian Oil and Gas Association. Table 1.2 presents the relevant legislations and documents.

Section 1.4 details how these requirements and guidelines have been incorporated into the habitat assessment.

Table 1.2: Relevant regulations

Acts
The Nature Diversity Act – Act of 19 June 2009 no.100 (Backer, 2009)
The Pollution Control Act – Act of 13 March 1981 No.6 (Regjeringen,2003)
Regulations
The Framework Regulation (Rammeforskriften) (PSA, 2019a)
The Management Regulation (Styringsforskriften) (PSA, 2019b)
The Activities Regulation (Aktivitetsforskriften) (PSA, 2020)
Pollution Regulation (Forurensningsforskriften)
Management Plans
Integrated Management of the Marine Environment of the Norwegian Sea (Norwegian Ministry of Climate and Environment [NME], 2009)
Guidelines
Environmental Monitoring of Petroleum Activities on the Norwegian Continental Shelf (NEA, 2020)
Handbook for Species and Habitats of Environmental Concern. Mapping, Risk Assessment, Mitigation and Monitoring. – In Relation to Oil and Gas Activities (DNV, 2019)
Red Lists
The 2015 Norwegian Red List for Species (Norwegian Biodiversity Information Centre [NBIC], 2015)
The 2018 Norwegian Red List for Ecosystems and Habitat Types (Arts Database, 2018)
The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species (IUCN, 2021)
OSPAR List of Threatened and/or Declining Species and Habitats (OSPAR, 2008)

1.4 Sensitive Habitats and Species

Table 1.3 provides a list of sensitive species and habitats that may occur within the current survey area, along with their relevant legislation.

Table 1.3: Sensitive species/habitats potentially present

Species/Habitat	Legislation	Description	Designation/Status
Desmophyllum pertusum (formerly *Lophelia pertusa*)	Activities Regulations	Coral reefs	Particularly vulnerable environmental resource
	OSPAR; List of Threatened and/or Declining Species and Habitats	*Lophelia pertusa* Reefs; Coral Gardens	Threatened and/or declining

Species/Habitat	Legislation	Description	Designation/Status
	Norwegian Red List for Ecosystems and Habitats	Coral reef	Vulnerable
	Norwegian Red List for Species	*Lophelia pertusa*	Near threatened
Paragorgia arborea (Coral garden)	OSPAR; List of Threatened and/or Declining Species and Habitats	Coral garden	Threatened and/or declining
	Norwegian Red List for Ecosystems and Habitats	Coral garden	Near threatened
	Norwegian Red List for Species	*Paragorgia arborea*	Near threatened
Madrepora oculata	Norwegian Red List for Species	*Madrepora oculata*	Data deficient
	Norwegian Red List for Ecosystems and Habitats	Coral reef	Vulnerable
	Activities Regulations	Coral reefs	Particularly vulnerable environmental resource
Deep-sea sponges	OSPAR; List of Threatened and/or Declining Species and Habitats	Deep-sea sponge aggregations	Threatened and/or declining habitat
Sea pen and burrowing megafauna	OSPAR; List of Threatened and/or Declining Species and Habitats	Sea pens and burrowing megafauna communities	Threatened and/or declining habitat

The current survey is located within in Blocks 6507/03 of the Norwegian Sea. The most relevant sensitive habitats for the current survey are considered to be 'Coral reefs', 'Coral gardens', 'Deep-sea sponge aggregations' and 'Sea pens and burrowing megafauna communities'.

1.4.1 Cold-water Corals

The cold-water coral *Desmophyllum pertusum,* formerly known as *Lophelia pertusa,* is known to be relatively abundant in the Norwegian Sea. *Desmophyllum pertusum* is the most important reef-building coral in the region, and provides valuable habitat for many other species, some of which have also been assigned a conservation status. The extent of *D. pertusum* reefs vary, with examples off Norway several km long and more than 20 m high (OSPAR, 2009).

Desmophyllum pertusum reefs occur on hard substrata which can be coral rubble from an old colony or glacial deposits; this suggests that *D. pertusum* reefs could be associated with iceberg ploughmark zones. The biological diversity associated to the reef was estimated to be three times as high as the surrounding soft sediment, suggesting that these cold-water coral reefs may be biodiversity hotspots. Characteristic species associated with the reef include other hard corals, such as *Madrepora oculata* and *Solenosmilia variabilis*, the redfish *Sebastes viviparous* and the squat lobster *Munida sarsi* (OSPAR, 2009).

Of all Norwegian marine habitat types, coral reefs are considered the most vulnerable. Between 30 % and 50 % of all coral reefs in Norwegian waters have been damaged to some extent, mostly by demersal fishing and this is considered of concern, given the slow growing nature of this cold-water coral species (OSPAR, 2009). Previous studies have determined linear growth rates of between 6 mm and 27 mm per year for *D. pertusum* (Lartaud et al., 2013) in a depth range of 200 m to 350 m (Roberts et al., 2009).

The cold-water coral *D. pertusum* is designated a 'Particularly vulnerable environmental resource' under the Activities Regulations, as threatened and/or in decline by the OSPAR Commission and are currently classified as 'Near threatened' on the Norwegian Red List (OSPAR, 2008; NBIC, 2015; PSA, 2020).

1.4.2 Coral Gardens

Coral gardens comprise aggregations of colonies or individuals of one or more coral species and can occur on a wide range of soft and hard bottom strata. The biological diversity of coral garden communities is typically high and often contains several species of coral belonging to different taxonomic groups (OSPAR, 2010a). When relatively dense colonies are observed over an area greater than 25 m^2, the area is considered a 'coral garden' under the definition provided by OSPAR (2010a).

Of importance are coral gardens containing the gorgonian corals *Paragorgia arborea* and *Primnoa resedaeformis*. The gorgonian coral, *P. arborea* is currently listed as 'Near threatened' on the Norwegian Red List. *Paragorgia arborea* is often found on coral rubble (dead coral reefs) and other hard substrates (DNV, 2019), whereas the bamboo coral *Isidella lofotensis* can be found on softer substrates (Buhl-Mortensen, 2018).

Coral gardens are listed as a 'Particularly vulnerable environmental resource' under the Activities Regulations, are designated as a 'Threatened and/or declining habitat' by the OSPAR Commission and are currently classified as 'Near threatened' in the Norwegian Red List for Ecosystems and Habitats (OSPAR, 2008; NBIC, 2015; PSA, 2020).

1.4.3 Deep-sea Sponges

Sponges (Porifera) are the most primitive group among multi-celled organisms, and form one of the most ancient animal groups on the planet. Sponges are generally classified into four groups; Calcarea (kalksvamper), Hexactinellida (glassvamper), Demospongiae and Homoscleromorpha (horn- og kiselsvamper). More than 90 % of identified sponge species belong to the group Demospongiae (Moen & Svensen, 2004).

There are approximately 300 species of sponge in Norwegian waters, but there are reasonable grounds to believe that many species have yet to be registered and scientifically described. The knowledge base for half of the species is regarded as inadequate, and their vulnerability has not been assessed by the Norwegian biodiversity information centre. A total of 28 sponge species are on the Norwegian Red List, based on the criteria 'Data deficient', and one fresh water species is classified as 'Near threatened' (Oug & Rapp, 2015). United

Nations Environmental Program (UNEP) states that deepwater sponge grounds meet the criteria of being vulnerable, based on the fact that they are limited to discrete areas, they support high biodiversity of other species, they are fragile and unlikely to recover from perturbations, and some are slow-growing, long-lived and form structural complex habitats (UNEP, 2010).

The habitat 'Deep-sea sponge aggregations' is designated threatened and/or declining by OSPAR (OSPAR, 2010b). The OSPAR Recommendation 2010/10 defines this habitat as "aggregations of deep-sea sponges extending over at least 25 m^2, that are principally composed of sponges from two classes: Hexactinellida and Demospongiae" (OSPAR, 2010b). However, the OSPAR background document for deep-sea sponge aggregations and the OSPAR description of habitats document does not include area coverage in their definition of the habitat, but rather states that "sponges in the class Hexactinellida have been reported at densities of 4 to 5 per m^2, whilst 'massive' growth forms of sponges from the class Demospongiae have been reported at densities of 0.5 to 1 per m^2" (OSPAR, 2010b).

The Norwegian guideline for quantification of sponge communities regards densities of 0.5 to 1 per m^2 of sponges in the class Demospongiae to fall under the OSPAR habitat 'Deep-sea sponge aggregations'. The guideline further suggests that 0.5 to 1 sponge per m^2 is equal to approximately 10 % coverage of sponge (depending on the sizes of sponges) and thus that 10 % coverage of Demospongiae can be expected to qualify as the threatened OSPAR habitat 'Deep-sea sponge aggregations' (DNV, 2019).

1.4.4 Sea Pens and Burrowing Megafauna

The habitat 'Sea pen and burrowing megafauna communities' is included on the OSPAR list (OSPAR, 2010c). This habitat typically consists of plains of sandy mud/muddy sand at water depths between 300 m to 330 m, which are bioturbated by burrowing megafauna with burrows and mounds typically forming a prominent feature of the sediment surface, with conspicuous populations of sea pens.

On the Norwegian continental shelf this biotope is typically inhabited by the sea pens *Funiculina quadrangularis*, *Virgularia mirabilis*, *Kophobelemnon stelliferum* and *Pennatula phosphorea*. The Norway lobster (*Nephrops norvegicus*), squat lobster (*Munida sarsi*) and the sea cucumber (*Parastichopus tremulus*) are also common (MAREANO, 2019).

The Norwegian Guideline M408 on environmental monitoring of petroleum activities recommends that sea pen communities are mapped, as well as the spatial distribution of the sea pen, *Umbellula* sp. (NEA, 2020). Neither the NEA (2020) guidelines nor the DNV (2019) handbook explicitly consider the assessment of burrowing megafauna.

1.5 Coordinate Reference System

All coordinates detailed in this report are referenced to European Datum 1950 (ED50) North of 62° N (Norway) Universal Transverse Mercator (UTM) projection Zone 32N central meridian (CM) 9º East. Table 1.4 provides the detailed geodetic and projection parameters.

Table 1.4: Project geodetic and projection parameters

Global Navigation Satellite System (GNSS) Geodetic Parameters *					
Datum:	World Geodetic System 1984 (WGS 84) (EPSG 4326)				
Ellipsoid:	WGS 84				
Semi-major axis:	a = 6 378 137.000 m				
Inverse flattening:	1/f = 298.257 223 563				
Local Datum Geodetic Parameters †					
Datum:	ED50 North of 62 deg N (EPSG 4230)				
Ellipsoid:	International 1924				
Semi-major axis:	a = 6 378 388.000 m				
Inverse flattening:	1/f = 297.000 000 000				
Datum Transformation Parameters from WGS84 to ED50 – Coordinate Frame Rotation Convention ‡					
Shift dX:	+116.641	m	Rotation rX:	+0.893 arc sec	Scale Factor: +3.520 ppm
Shift dY:	+56.931	m	Rotation rY:	+0.921 arc sec	
Shift dZ:	+110.559	m	Rotation rZ:	-0.917 arc sec	
Project Projection Parameters					
Map Projection:	Universal Transverse Mercator (UTM)				
Grid System:	UTM Zone 32 N				
Central Meridian:	09° 00′ 00″ East				
Latitude of Origin:	00° 00′ 00″ North				
False Easting:	500 000 m				
False Northing:	0 m				
Scale factor on Central Meridian:	0.9996				
Units:	metre				

Notes
* = Fugro Starfix navigation software uses WGS 84 geodetic parameters as a primary datum for any geodetic calculations
† = Source: Client
‡ = This is the right-hand coordinate frame rotation used by the Fugro Starfix navigation software
EPSG = European Petroleum Survey Group

2. Survey Strategy

2.1 Geophysical Data

The Newt-Barlindåsen site survey consisted of an integrated shallow geophysical and 2D high resolution seismic survey encompassing the two PWLs and the four RWLs. The survey comprised 27 lines orientated 131°/311°, approximately 5.9 km in length, and 18 lines orientated 041°/221°, varying in length between approximately 4.9 km and 6.7 km. Dual frequency side scan sonar (SSS), single and multibeam echosounder data were collected along all lines.

2.2 Habitat Assessment

The environmental survey comprised two 'bow-tie' formations, one on Newt PWL and one on Barlindåsen SW PWL. The bow-tie formations comprised three transects and were orientated to investigate features of interest identified from the SSS and bathymetry data. After data were reviewed by the onboard environmental scientists in conjunction with the onboard geophysicist, three additional transects were selected within the Newt PWL area, to ground-truth areas of interest within 500 m of the PWL.

Table 2.1 provides the coordinates, data to be acquired and rationale for each proposed location.

Figure 2.1 and Figure 2.2 provide a spatial display of the proposed locations overlaid on a SSS mosaic.

Table 2.1: Proposed camera transects

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]					
Transect		Easting	Northing	Rationale	Data Acquisition
ABP21307-TR01	SOL	447 319.2	7 301 306.3	Bow-tie transect covering Newt PWL. Transect intersects two ploughmarks with possible coral features. One location is to the NW of the PWL and lies approximately 40 m from the line and the PWL	Video, stills
	EOL	447 819.2	7 301 306.3		
ABP21307-TR02	SOL	447 569.2	7 301 556.3	Bow-tie transect covering Newt PWL. Transect intersects a ploughmark with possible coral features (also covered by transects ABP21307-TR01 and ABP21307-TR03). The transect is in close proximity to possible coral close to the PWL described in transect ABP21307-TR01	Video, stills
	EOL	447 569.2	7 301 056.3		
ABP21307-TR03	SOL	447 569.2	7 301 556.3	Bow-tie transect linking transects ABP21307-TR01 and ABP21307-TR03. Transect crosses a ploughmark and possible coral feature	Video, stills
	EOL	447 319.2	7 301 306.3		

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]					
Transect		Easting	Northing	Rationale	Data Acquisition
ABP21307-TR04	SOL	448 271.7	7 299 110.7	Bow-tie transect covering Barlindåsen SW PWL. General substrate of the overall area represented	Video, stills
	EOL	447 808.0	7 299 110.7		
ABP21307-TR05	SOL	447 895.0	7 299 434.0	Bow-tie transect covering Barlindåsen SW PWL. General substrate of the overall area represented. NNW edge crossing a ploughmark	Video, stills
	EOL	448 121.0	7 298 857.0		
ABP21307-TR06	SOL	447 808.0	7 299 110.7	Bow-tie transect linking transects ABP21307-TR04 and ABP21307-TR05. Transect orientated to cross a ploughmark and possible coral feature	Video, stills
	EOL	447 895.0	7 299 434.0		
ABP21307-TR07	SOL	447 306.4	7 300 792.7	Transect targeting a ploughmark and possible coral feature on the southern edge of the 500 m radius buffer zone, around Newt PWL	Video, stills
	EOL	447 518.7	7 300 814.3		
ABP21307-TR08	SOL	447 113.3	7 301 516.6	Transect targeting a ploughmark and possible coral feature on the north-west edge of the 500 m radius buffer zone, around Newt PWL	Video, stills
	EOL	447 291.9	7 301 664.2		
ABP21307-TR09	SOL	447 239.0	7 300 947.0	Transect targeting a ploughmark and possible coral feature on the south-west edge of the 500 m radius buffer zone, around Newt PWL	Video, stills
	EOL	447 246.4	7 301 101.0		

Notes
SOL = Start of line
EOL = End of line
PWL = Planned well location

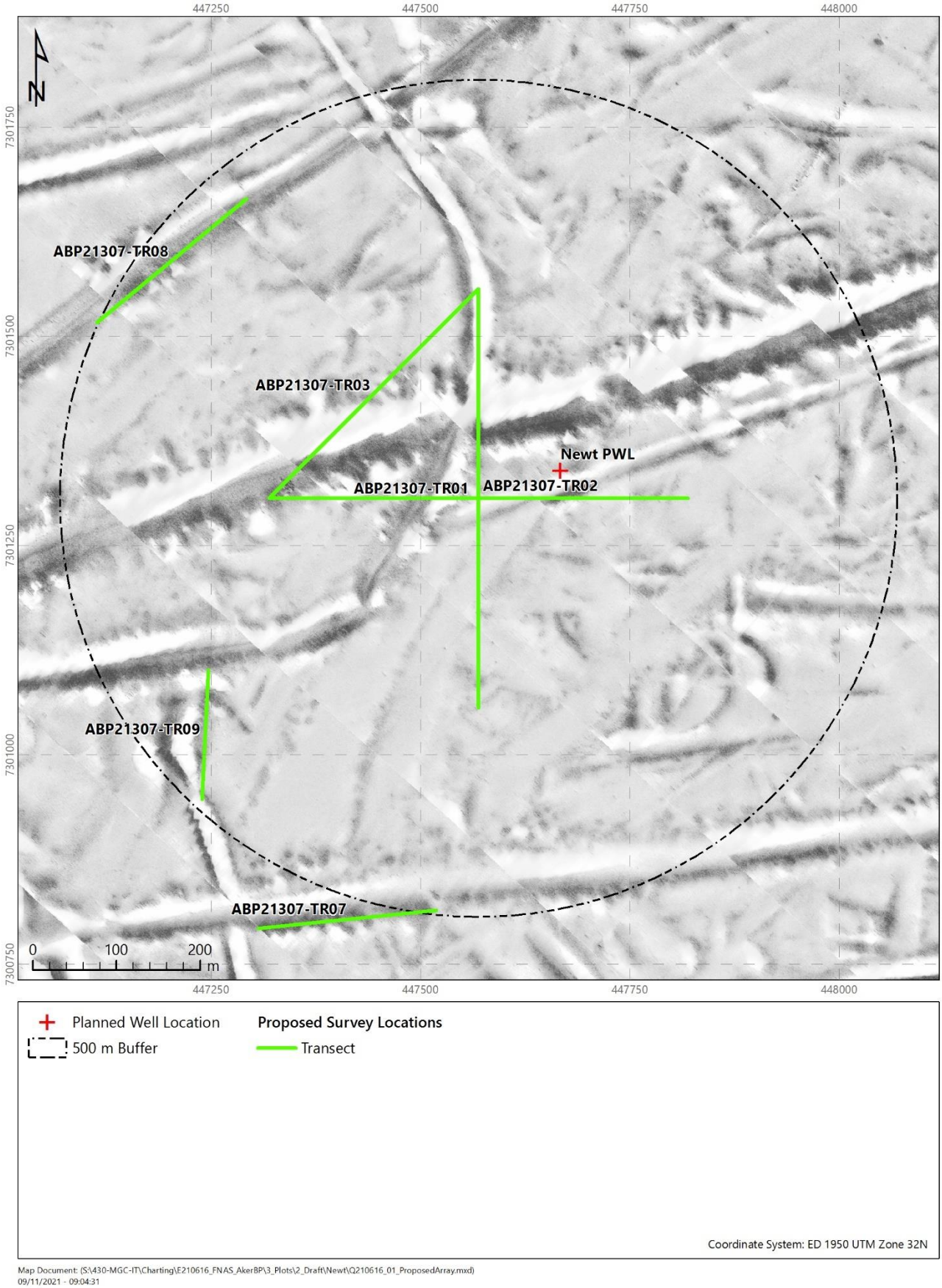


Figure 2.1: Proposed environmental survey locations overlain on the side scan sonar mosaic, Newt

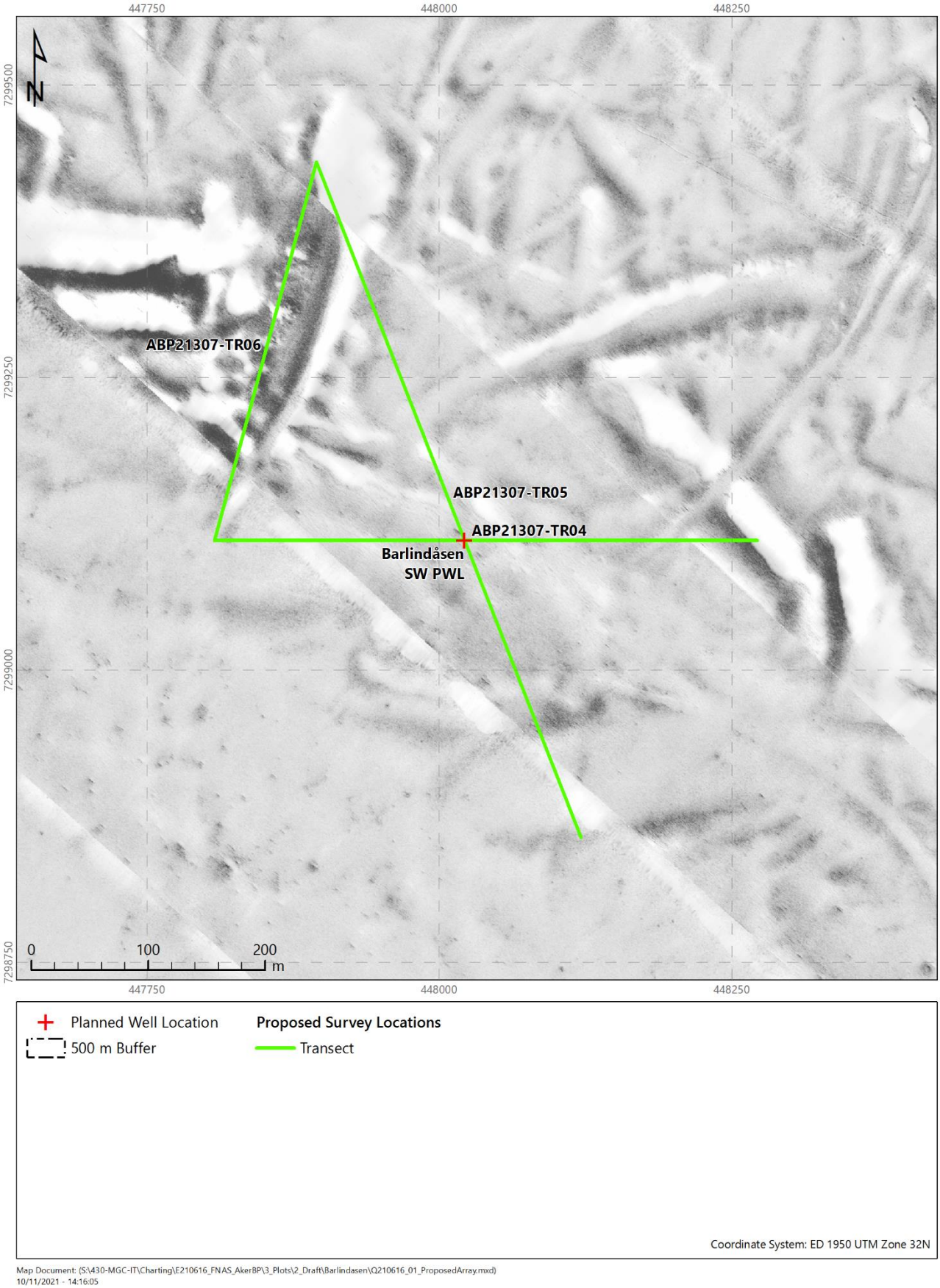


Figure 2.2: Proposed environmental survey locations overlain on the side scan sonar mosaic, Barlindåsen SW PWL

3. Methods

3.1 Survey Methods

3.1.1 Bathymetry

Bathymetric data were acquired using a multibeam echosounder (MBES). Water depths were quoted relative to Mean Sea Level (MSL) and were accurate in the order of ± 1 m. Fugro's Starfix system was used as the primary navigation system.

3.1.2 Seabed Features

Seabed features and obstructions have been interpreted from MBES and dual frequency SSS (410 kHz and 120 kHz) data. The horizontal accuracy of the SSS data is approximately 1.0 m; obstructions smaller than this may not have been detected. The SSS mosaic dataset is resampled to a resolution of 0.5 m.

The positional accuracy of features interpreted from the SSS data depends on a combination of the vessel positioning, acoustic positioning of the towfish relative to the vessel and interpretation of position relative to the towfish. For this dataset, the overall positional accuracy is estimated as ± 5 m. Where seabed features show a bathymetric expression, the positions were defined using a combination of SSS and MBES datasets.

3.1.3 Seabed Photography

Seabed imagery was acquired using a Seaeye Tiger ROV with one high resolution Subsea 1-Cam Alpha+ video camera (also used for acquisition of still images), one standard definition camera (with overlay), and two LED lamps. The HD camera had red lasers spaced 6.5 cm apart.

The standard NS EN 16260:2012 "Visual seabed surveys using remotely operated and towed observation gear for collection of environmental data" was used as a basis for visual mapping (Norwegian Standards, 2021).

3.2 Interpretation Methods

3.2.1 Seabed Habitats/Biotopes Classification

To assess the habitats that were present within the survey area, detailed analysis of video and still photographic data was undertaken. Video data were reviewed in conjunction with the still photographs, noting the locations of any observed changes in sediment type and/or associated faunal community.

Taxa were recorded to the lowest possible taxonomic level. It should be noted that many species cannot be identified from photographic data alone and, as such, higher taxonomic levels were used.

Descriptions of the substrate composition was undertaken for each video segment corresponding to sediment changes. These descriptions are largely based on a reclassification of the Folk (1954) sediment description developed to support the EUNIS habitat classification (Long, 2006). Folk based classifications are defined by the combined proportions of 'mud', 'sand' and 'gravel'. For example, a description of 'muddy sand' defines sediments that have sand as the principle component (50 % to 90 %), mud as a secondary component (10 % to 50 %) and minimal gravel (< 5 %; Kaskela et al., 2019). The Wentworth (1922) classification, which differentiates sediment based on dimension, was also utilised for sediment fractions identifiable in photographic data analysis (e.g. 'pebbles', 'cobbles' and 'boulders').

The Folk (1954) sediment description was reclassified into four categories, namely 'coarse sediment', 'mixed sediment', 'mud and sandy mud' and 'sand and muddy sand' (Long, 2006), with a further three sub-categories, namely 'mud', sandy mud' and 'muddy sand', considered (Kaskela et al., 2019) to clarify differences in sands to muddy sand. The European Marine Observation and Data Network (EMODnet) Geology Consortium further revised these categories to include 'rock and boulders' (Kaskela et al., 2019), which includes 'cobbles' and 'boulders', as per the Wentworth (1922) classification, and bedrock. The presence of shell fragments and anthropogenic features were also noted, where appropriate.

Table 3.1 presents a summary of the sediment particle sizes and corresponding classifications.

Table 3.1: Sediment particle size and classification terms

<table>
<tr><th>Particle Size</th><th>Wentworth (1922)</th><th>Folk (1954)</th><th colspan="4">Folk, 5 classes (Kaskela et al., 2019)</th></tr>
<tr><td>> 256 mm</td><td>Boulder</td><td rowspan="8">Gravel</td><td colspan="4">Rock and boulders</td></tr>
<tr><td>64 mm to 256 mm</td><td>Cobble</td></tr>
<tr><td>32 mm to < 64 mm</td><td rowspan="4">Pebbles</td><td rowspan="10">Coarse sediment:
(Gravel ≥ 80 %,
or
Gravel ≥ 5 %
and Sand ≥ 90 %)</td><td rowspan="10">Mixed sediment:
(Mud ≥ 10 % - 95 %
Sand < 90 %
Gravel ≥ 5%)</td><td rowspan="10">Mud to muddy sand*:
(Mud 10 % - 95 %
Sand < 90 %
Gravel < 5 %)</td><td rowspan="10">Sand:
(Mud < 10 %
Sand ≥ 90 %
Gravel < 5%)</td></tr>
<tr><td>16 mm to < 32 mm</td></tr>
<tr><td>8 mm to < 16 mm</td></tr>
<tr><td>4 mm to < 8 mm</td></tr>
<tr><td>2 mm to < 4 mm</td><td>Granules</td></tr>
<tr><td>1 mm to < 2 mm</td><td>Very coarse sand</td><td rowspan="5">Sand</td></tr>
<tr><td>0.5 mm to < 1 mm</td><td>Coarse sand</td></tr>
<tr><td>0.25 mm to < 0.5 mm</td><td>Medium sand</td></tr>
<tr><td>0.125 mm to < 0.25 mm</td><td>Fine sand</td></tr>
<tr><td>62.5 µm to 0.125 mm</td><td>Very fine sand</td></tr>
<tr><td>> 4 µm to 62.5 µm</td><td>Silt</td><td rowspan="2">Mud</td><td rowspan="2">-</td></tr>
<tr><td>> 1 µm to 4 µm</td><td>Clay</td></tr>
<tr><td colspan="7">Notes
* = Mud to muddy sand includes:
Mud (Mud ≥ 90 %, Sand <10 %, Gravel < 5%);
Sandy mud (Mud 50 % to 90 %, Sand 10 % to 50 %, Gravel < 5%);
Muddy sand (Mud 10 % to 50 %, Sand 50 % to 90 %, Gravel < 5%) (Kaskela et al., 2019)</td></tr>
</table>

Habitats within the survey area have been classified in accordance with the European Nature Information Service (EUNIS) habitat classification (EEA, 2019). Table 3.2 summarises the EUNIS hierarchy, with an example of the coding system. The EUNIS classification system is designed to incorporate small-scale temporal variations (e.g. seasonal) into the biotope/habitat categories. However, biological communities and marine environments can be highly dynamic and temporally variable, therefore the biotopes and habitats identified by the current assessment are representative of the survey area at the time of sampling only.

EUNIS classifications were coded for each habitat type observed from video data. Although, theoretically, a biotope can be assigned to any sized area of seabed, for the purposes of this assessment the commonly accepted minimum habitat size of 25 m^2 (Parry, 2019) was adopted.

Table 3.2: EUNIS (EEA, 2019) biotope classification hierarchy example

Level	Example Classification Name	Example Classification Code
1. Environment	Marine habitats	A
2. Broad habitat types	Sublittoral sediments	A5
3. Main habitats	Sublittoral sand	A5.2
4. Biotope complexes	Circalittoral muddy sand	A5.26
5 & 6. Biotopes and sub-biotopes	*Amphiura brachiata* with *Astropecten irregularis* and other echinoderms in circalittoral muddy sand	A5.262

It should be noted that the EUNIS classification system is not specific to Norwegian conditions. The identified species within the survey area may therefore be different from example species listed for specific biotopes in the EUNIS system.

3.2.2 Sensitive Habitats and Species

Sensitive habitats and species of potential relevance to the survey area have been outlined in Section 1.4. The following methods for assessment were utilised.

3.2.2.1 Cold-water Corals

The geophysical data was reviewed to delineate potential cold-water coral habitats. The photographic analysis data were used to ground-truth the geophysical data. The coral areas interpreted from the photographic analysis were overlain onto the geophysical data and the initial interpreted coral areas. The boundaries of the coral areas were then refined where appropriate.

Each ground-truthed area of interpreted coral was assessed to give an overall designation of the condition of the *D. pertusum* on the structure, based on the criteria set out by the DNV guidelines (DNV, 2019).

Photographic data were reviewed with the start and end location of each *D. pertusum* colony recorded. The percentage cover of living *D. pertusum* and dead *D. pertusum* was calculated from the photographic data. These values were then used to define the criteria for coral condition (Table 3.3).

Table 3.3: Single *Desmophyllum pertusum* colony classification

Desmophyllum		Density of living polyps on colony front [%]				
		< 5	5 – 20	20 – 40	40 – 60	> 60
Total area of living *Desmophyllum* polyps on colony front	**< 2.5 m²** Length and height: < 1.6 m or radius < 0.9 m	Dead	Poor	Poor	Fair	Good
	2.5 m² – 10 m² Length and height: 1.6 m – 3.2 m or radius 0.9 m – 1.8 m	Dead	Poor	Fair	Good	Excellent
	10 m² – 25 m² Length and height: 3.2 m – 5 m or radius 1.8 m -2.8 m	Poor	Fair	Good	Good	Excellent
	> 25 m² Length and height: 5 m or radius > 2.8 m	Fair	Fair	Good	Excellent	Excellent

3.2.2.2 Coral Gardens

The number and location of gorgonian corals was recorded along each camera transect. If colonies were observed over an area more than 25 m^2, the area was considered a 'Coral garden' under the definition provided by Oslo and Paris Commission (OSPAR, 2010a).

Following identification of areas of coral garden, the condition was assessed according to the guidelines set out by DNV (2019). The categories of '*Paragorgia*, single on boulder' (1 coral colony per 25 m^2), 'poor' (< 5 coral colonies per 25 m^2), 'fair' (5 to 10 coral colonies per 25 m^2), 'good' (10 to 15 coral colonies per 25 m^2) and 'excellent' (> 15 coral colonies per 25 m^2), were then applied depending on the average density of the colonies found in the area. Table 3.4 details the different conditions and densities for coral gardens.

Table 3.4: Coral garden assessment criteria

Condition	Coral colonies [per 25 m^2]
Paragorgia, single on boulder	1
Poor	< 5
Fair	5 – 10
Good	10 – 15
Excellent	> 15

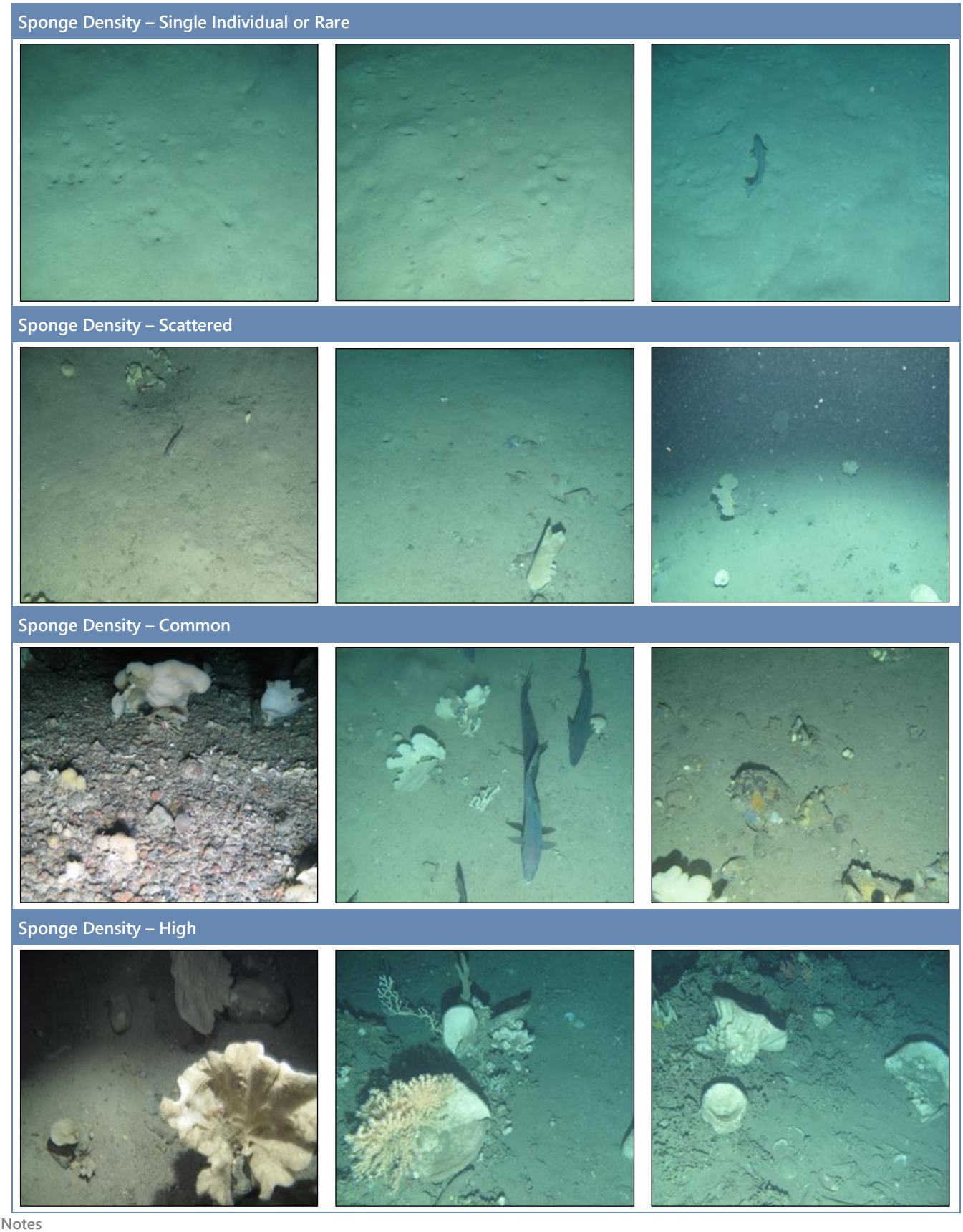
3.2.2.1 Deep-sea Sponge Aggregations

If encountered, sponge aggregations were assessed following the criteria outlined by the Norwegian Environment Agency (NEA) guidelines (NEA, 2020) and DNV handbook (DNV, 2019). The method derived from the assessment criteria described by DNV (2019) and

NEA (2020) aims to define the percentage cover of sponges on the seabed. These are then classified according to five categories; 'single individual' (< 1 % cover), 'rare' (< 1 % cover), 'scattered' (1 % to 5 % cover), 'common' (5 % to 10 % cover) and 'high' (> 10 % cover). Soft-bottom sponges and hard-bottom sponges are considered separately in the assessment. Table 3.5 and Figure 3.1 present further details of the categories.

Table 3.5: Sponge density assessment criteria

Sponge Habitat Category	Percentage Cover [%]	Description
Single individual	< 1	Single individual sponge
Rare	< 1	Very low density of individuals
Scattered	1 – 5	Density of individual sponges is still very low with only a few individuals being seen on seabed photography
Common	5 – 10	Higher densities of sponges with a high number of individuals being recorded from the photographic data. Often several different species are present
High	> 10	Dense areas of sponges which dominate the habitat



Notes

The images above are for illustrative purposes only and were not acquired during the current survey

Figure 3.1: Example photographs illustrating sponge cover classifications

3.2.2.2 Sea Pens and Burrowing Megafauna Communities

The semi-quantitative distribution scale recommended by DNV (2019) was used to estimate the abundance of sea pens. Table 3.6 presents further details of the categories.

Table 3.6: Sea pen assessment criteria

Sea Pen Communities Category	Number of Specimens [per 25 m^2]
Poor	< 5
Fair	5 – 10
Good	10 – 15
Excellent	> 15

OSPAR do not specify burrow density criteria for defining the habitat 'Sea pens and burrowing megafauna communities'. However, the OSPAR definition of habitat is "plains of fine mud, which are heavily bioturbated by burrowing megafauna, burrows and mounds may form a prominent feature of the sediment surface" (OSPAR, 2010b).

3.2.2.3 Red Species List

The Norwegian Red List includes species assessed against criteria that reflect the risk of the species dying out if conditions remain unchanged. Species considered vulnerable and classed as red-listed are those listed in the 'critically endangered' (CR), 'endangered' (EN) and 'vulnerable' (VU), 'near threatened '(NT) and 'data deficient' (DD) categories. Within the red-listed categories, species assessed as CR, EN and VU qualify as threatened species. Species assigned the 'least concern' (LC) category are not classified as Red List species (Henriksen & Hilmo, 2015).

The species observed within the Newt-Barlindåsen survey area were compared to the Norwegian Red List (NBIC, 2015) to determine the conservation status of the taxa observed.

4. Results

4.1 Field Operations

Photographic data were successfully acquired along all nine proposed transects. Due to poor visibility at transect TR02, a re-run was completed as transect TR02a.

Table 4.1 details the acquired photographic data acquired at each station and transect. Appendix B.2 provides detailed survey logs.

Table 4.1: Completed camera transects

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]						
Transect		Easting	Northing	Depth [m BSL]	Length [m]*	Data Acquisition
ABP21307-TR01	SOL	447 313.1	7 301 300.8	344	648	Video: 38 mins 38 sec 62 stills
	EOL	447 819.7	7 301 307.1	349		
ABP21307-TR02A	SOL	447 567.8	7 301 052.3	348	890	Video: 52 mins 37 sec 23 stills
	EOL	447 550.7	7 301 529.5	351		
ABP21307-TR03	SOL	447 570.1	7 301 559.5	351	407	Video: 29 mins 4 sec 37 stills
	EOL	447 318.6	7 301 304.4	344		
ABP21307-TR04	SOL	447 802.9	7 299 119.6	371	858	Video: 1 hour 5 mins 9 sec 32 stills
	EOL	448 282.0	7 299 131.4	358		
ABP21307-TR05	SOL	448 125.2	7 298 860.5	374	908	Video: 55 mins 48 sec 48 stills
	EOL	447 899.7	7 299 436.8	357		
ABP21307-TR06	SOL	447 895.7	7 299 434.3	357	558	Video: 41 mins 53 sec 52 stills
	EOL	447 805.4	7 299 108.4	371		
ABP21307-TR07	SOL	447 523.2	7 300 820.5	346	292	Video: 18 mins 56 sec 29 stills
	EOL	447 302.4	7 300 788.4	347		
ABP21307-TR08	SOL	447 115.5	7 301 504.8	348	321	Video: 14 mins 14 sec 44 stills
	EOL	447 292.5	7 301 665.7	348		
ABP21307-TR09	SOL	447 237.4	7 300 945.2	347	218	Video: 14 mins 14 sec 28 stills
	EOL	447 246.2	7 301 109.7	345		

Notes
BSL = Below sea level
SOL = Start of line
EOL = End of line
* = Distance is calculated from the ROV track

4.2 Bathymetry and Seabed Features

Water depths across the survey area ranged from 343.2 m Mean Sea Level (MSL) in the centre of the survey area to 435.3 m MSL in the south of survey area.

Most of the survey area displays medium acoustic reflectivity on the side scan sonar records and is interpreted to comprise of silty, sandy clay with a patchy veneer of sand and occasional gravel. Patches of very high reflectivity coincide with iceberg ploughmarks, depressions, and seabed scars.

Figure 4.1 and Figure 4.2 display the survey area bathymetry overlain with completed transects and seabed features.

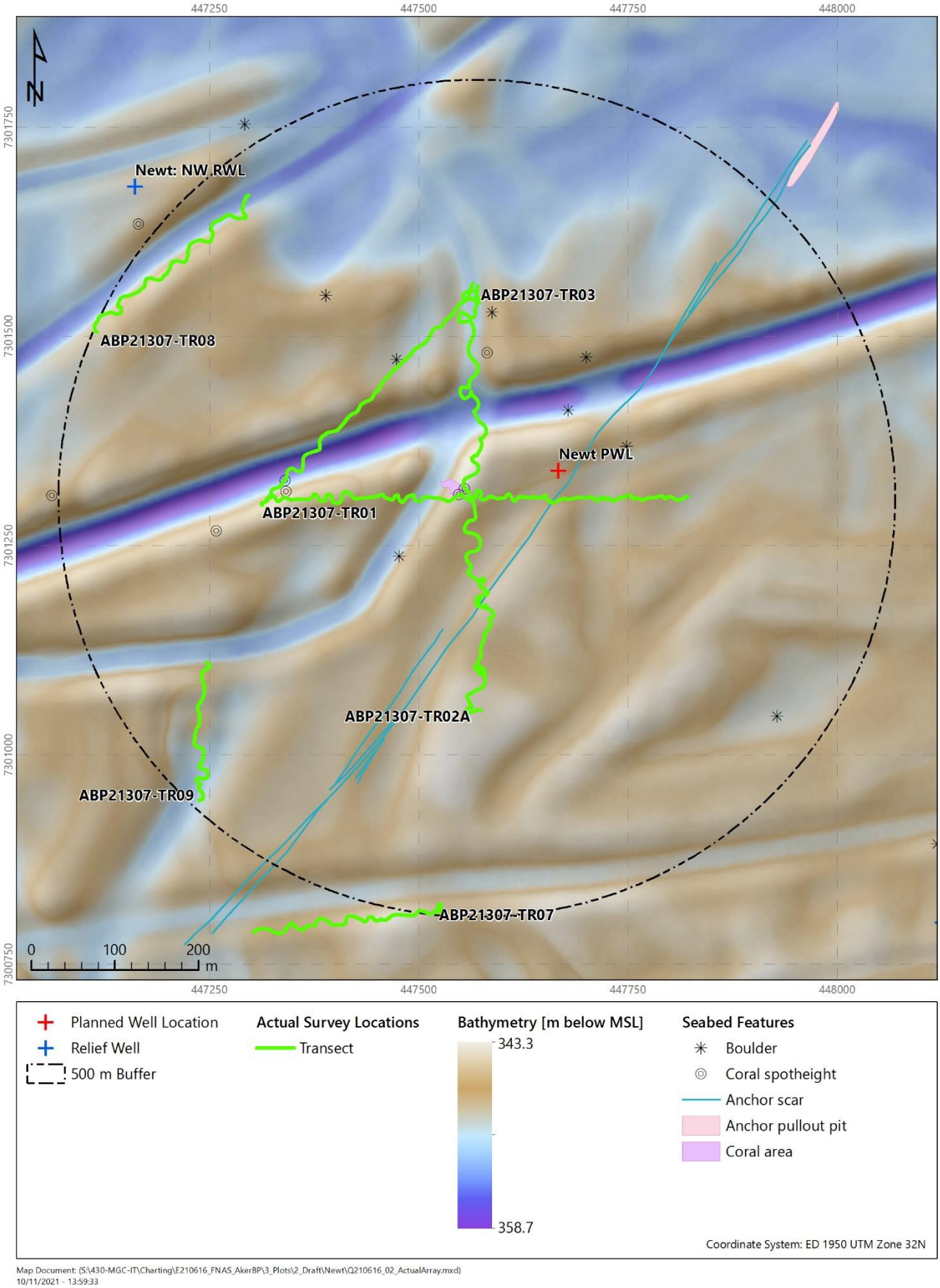


Figure 4.1: Completed environmental transects and seabed features overlain on bathymetry data, Newt

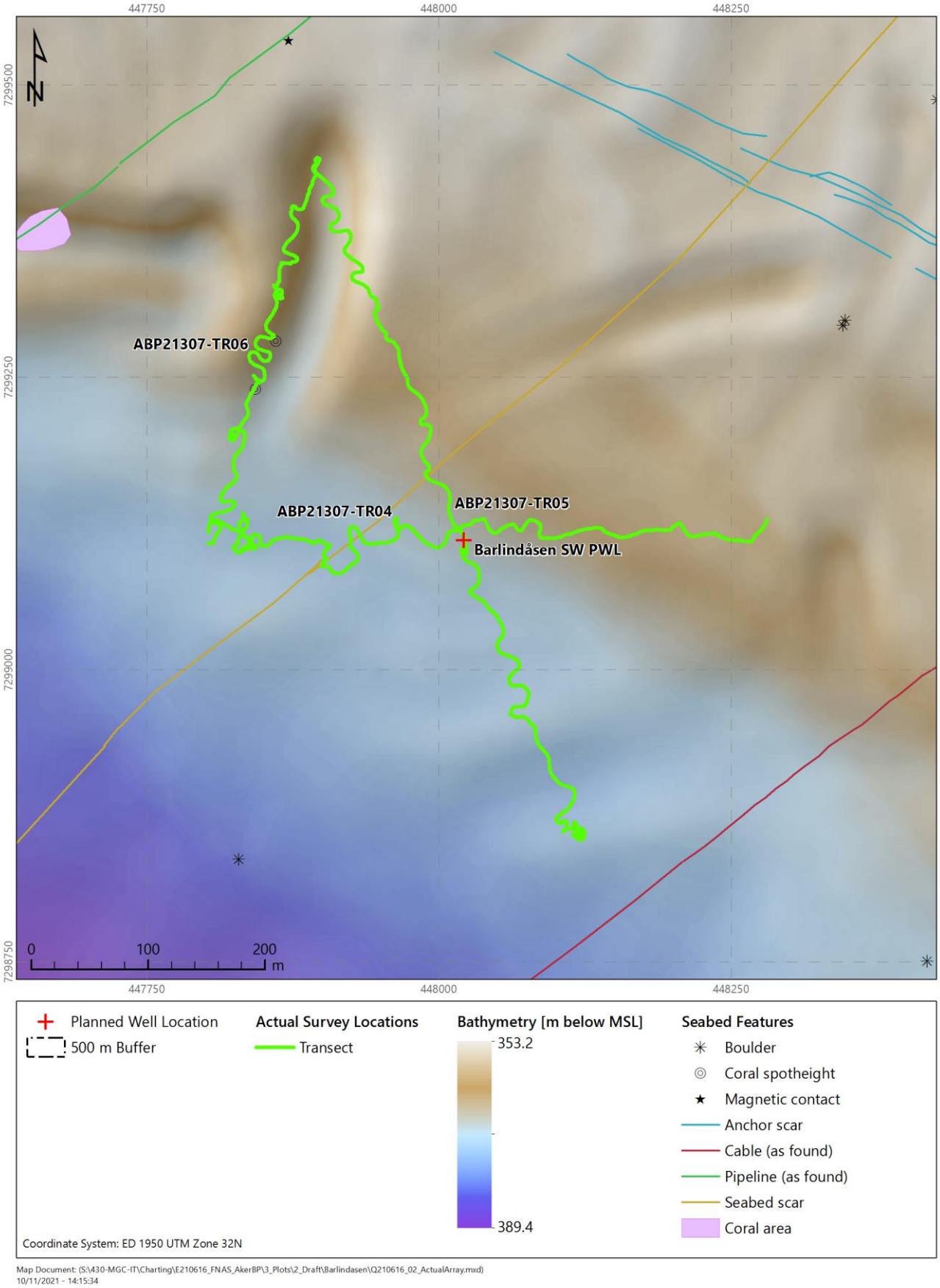


Figure 4.2: Completed environmental transects and seabed features overlain on bathymetry data, Barlindåsen SW PWL

4.3 Seabed Habitats and Fauna

Sediments across the survey area comprised sandy mud/muddy sand, with varying proportions of coarser sediments (pebbles, cobbles and boulders). This corresponded to the level 3 EUNIS habitats 'Deep-sea mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). Stony coral, *Desmophyllum pertusum* was also recorded within the survey area and large reef structures (both dead and living) represented the biotope 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631).

Table 4.2 presents the classification hierarchy for the habitats observed within the survey area. Appendix B.2 provides the photographic data log.

Table 4.2: Habitat classifications, Newt and Barlindåsen

EEA (2019a) Habitat Classification				
Environment Level 1	Broad Habitat Level 2	Habitat Complex Level 3	Biotope Complex Level 4	Sub-Biotope Level 5
A Marine	A6 Deep-sea bed	A6.2 Deep-sea mixed substrata	-	-
		A6.5 Deep-sea mud	-	-
	A5 Sublittoral sediment	A5.6 Sublittoral biogenic reefs	A5.63 Circalittoral coral reefs	A5.631 Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs
Notes EUNIS = European Nature Information System				

4.3.1 Deep-sea Mixed Substrata (A6.2)

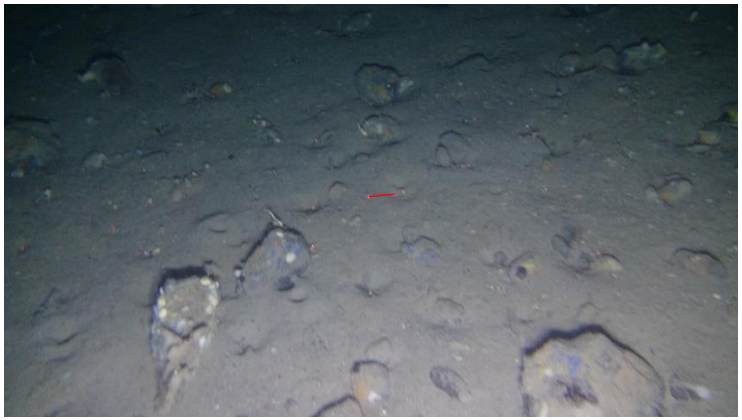
This level 3 EUNIS classification is reported beyond the continental shelf break, in water depths generally over 200 m, and encompasses deep-sea benthic habitats with substrates predominantly of mixed particle size or gravel (EEA, 2019b).

Within the Newt-Barlindåsen survey area, water depths ranged between 343 m MSL and 435 m MSL. Areas of sandy mud/muddy sand with varying proportions of gravel (including pebbles, cobbles and boulders) corresponded with areas of high or mottled reflectivity on the SSS. Mixed sediments were observed along all transects.

Dominant fauna observed within this habitat included sponges (Porifera including Axinellidae, *Hymedesmia paupertas* and *Mycale lingua*). Other fauna observed included gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobsters (Galatheoidea), sea urchins (*Gracilechinus acutus*) and anemones (*Actinostola callosa*). Fish observed in this habitat included saithe (*Pollachius virens*), redfish (Sebastidae) and tusk (*Brosme brosme*).

The water depth, sediment type and fauna observed corresponded with the EUNIS habitat 'Deep-sea mixed substrata'. Figure 4.3 presents example seabed photographs of this habitat complex.

A



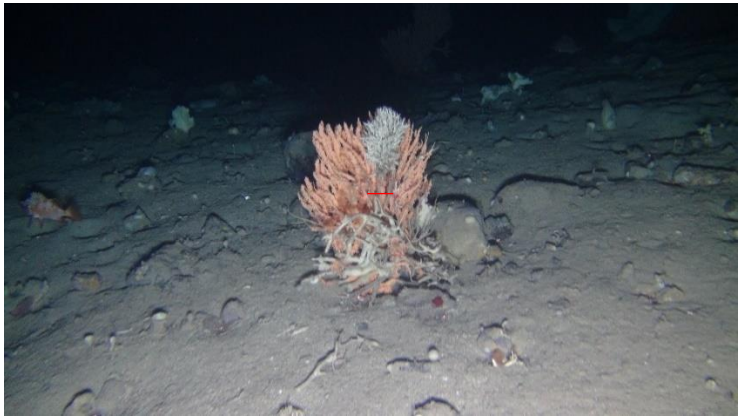
Photograph ABP21307-TR01-08
Muddy sand/sandy mud with pebbles cobbles
Sponges (Porifera), mud covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

B



Photograph ABP21307-TR07-21
Muddy sand/sandy mud with cobbles
Encrusting sponges (Porifera, including *Hymedesmia paupertas*), sponges (Porifera, including Axinellidae), stalked sponges (*Stylocordyla borealis*)

C



Photograph ABP21307-TR09-25
Muddy sand/sandy mud with cobbles
Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Primnoa resedaeformis*), mud covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae), sponges (Porifera), redfish (Sebastidae)

D



Photograph ABP21307-TR07-20
Muddy sand/sandy mud with cobbles
Stalked sponges (*Stylocordyla borealis*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa), mud covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae), sponges (Porifera)

Notes Laser distance (red) is 6.5 cm

Figure 4.3: Example seabed photographs of 'Deep-sea mixed substrata' (A6.2)

4.3.2 Deep-sea Mud (A6.5)

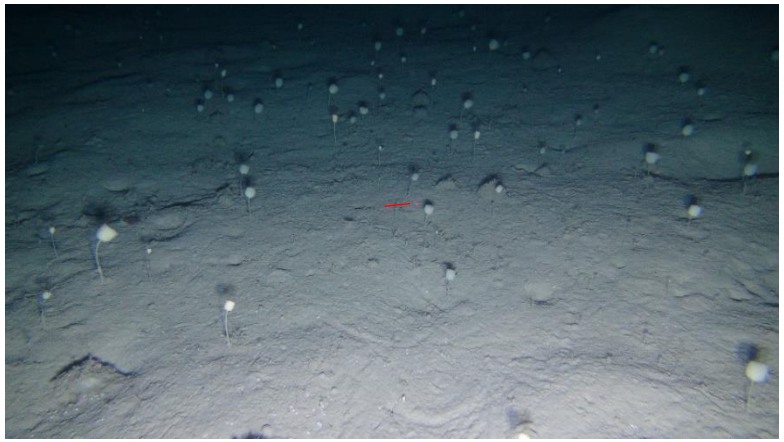
This level 3 EUNIS classification is reported beyond the continental shelf break, generally over 200 m, and encompasses abyssal benthic habitats with substrates predominantly of mud, with sparse epifauna (EEA, 2019c).

Areas of sandy mud/muddy sand corresponded with areas of low SSS reflectivity. These soft sediments were observed along five transects (ABP21307_TR01, ABP21307_TR02a, ABP21307_TR04, ABP21307_TR05 and ABP21307_TR07).

Fauna was generally sparse within this habitat and included sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), squat lobsters (Galatheoidea) and cushion stars (Valvatida including *Ceramaster granularis*) and mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). Fish observed in this habitat included saithe (*Pollachius virens)*. The soft sediment was bioturbated, with faunal burrows, mounds and tracks present.

The water depth, sediment type and fauna observed corresponded with the EUNIS habitat 'Deep-sea mud'. Figure 4.4 presents example seabed photographs of this habitat complex.

A



Photograph ABP21307-TR02-13
Muddy sand/sandy mud
Stalked sponges (*Stylocordyla borealis*), faunal tracks and burrows

B



Photograph ABP21307-TR05-18
Muddy sand/sandy mud
Mud covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae), faunal tracks and burrows

C



Photograph ABP21307-TR04-24
Muddy sand/sandy mud
A: Faunal turf (Hydrozoa/Bryozoa), mud covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae), faunal tracks and burrows

D



Photograph ABP21307-TR02A-04
Muddy sand/sandy mud
Stalked sponges (*Stylocordyla borealis*), faunal turf (Hydrozoa/Bryozoa), faunal tracks

Notes Laser distance (red) is 6.5 cm

Figure 4.4: Example seabed photographs of 'Deep-sea mud (A6.5)

4.3.3 Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) Reefs (A5.631)

This level 5 EUNIS classification is defined by the presence of *Desmophyllum pertusum* (previously *Lophelia pertusa*). The coral provides a three-dimensional structure that acts as a shelter and a surface for attachment for other species including sponges, anemones, bryozoans, gorgonian corals, polychaetes, barnacles, squat lobsters, bivalves, redfish, ling and torsk (EEA, 2019d).

Fauna were diverse in comparison to the surrounding soft sediments. Fauna associated with included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis*), file shells (*Acesta excavata*) and anemones (Actiniaria including *Actinostola callosa*). Associated motile fauna included squat lobsters (Galatheoidea including *Munida* sp.), shrimp (Caridea) and redfish (Sebastidae).

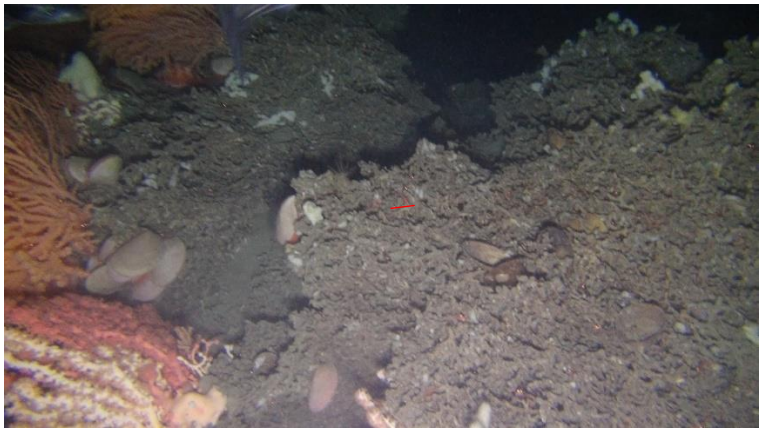
Figure 4.5 presents example seabed photographs of this sub-biotope.

A



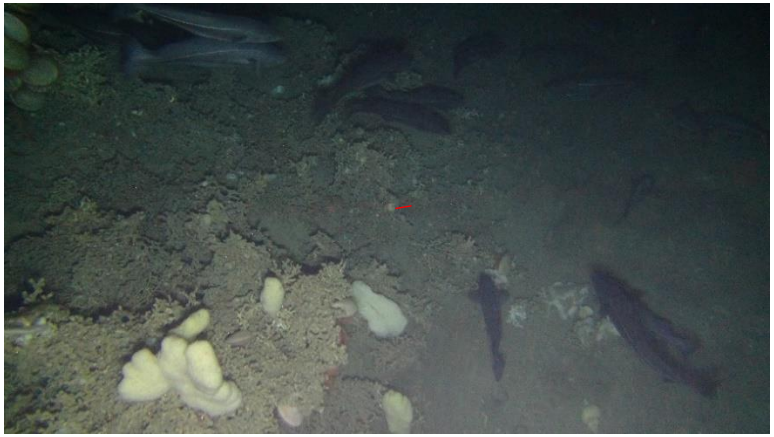
Photograph ABP21307-TR01-33
Dead coral framework
Redfish (Sebastidae), gorgonian corals (*Primnoa resedaeformis*), sponges (Porifera), file shells (*Acesta excavata*)

B



Photograph ABP21307-TR06-19
Dead coral framework
Gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), file shells (*Acesta excavata*), redfish (Sebastidae), cold-water coral (*Desmophyllum pertusum*), sponges (Porifera)

C



Photograph ABP21307-TR01-31
Coral framework
File shells (*Acesta excavata*), redfish (Sebastidae), cold-water coral (*Desmophyllum pertusum*), sponges (Porifera) including *Mycale lingua*), saithe (*Pollachius virens*)

D



Photograph ABP21307-TR06-23
Coral framework
Gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), file shells (*Acesta excavata*), squat lobster (*Munida* sp.),

Notes Laser distance (red) is 6.5 cm

Figure 4.5: Example seabed photographs of 'Circalittoral *Desmophyllum pertusum (Lophelia pertusa)* Reefs' (A5.631)

4.4 Potential Sensitive Habitats and Species

4.4.1 Cold-water corals

Dead coral framework and coral rubble was observed with the survey area. Living *Desmophyllum pertusum* was observed, although with a low percentage cover and total living front area. Therefore these areas were classified as 'dead'. shows the location of the hard-bottom corals observed within the survey area. Figure 4.6 and Figure 4.7 present the spatial distribution of *Desmophyllum pertusum* structures across the survey area.

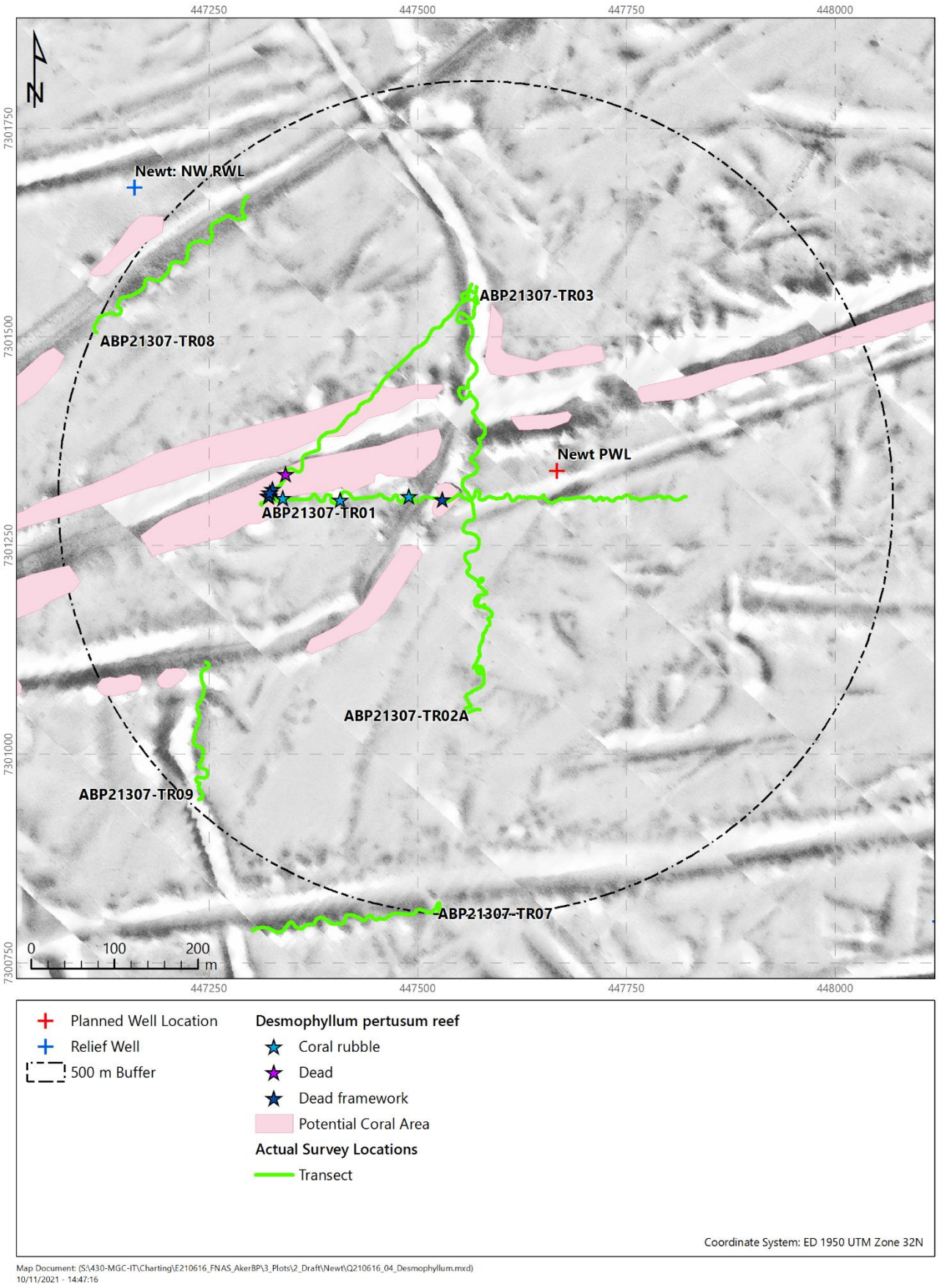


Figure 4.6: Spatial distribution of of *Desmophyllum pertusum* structures, Newt PWL

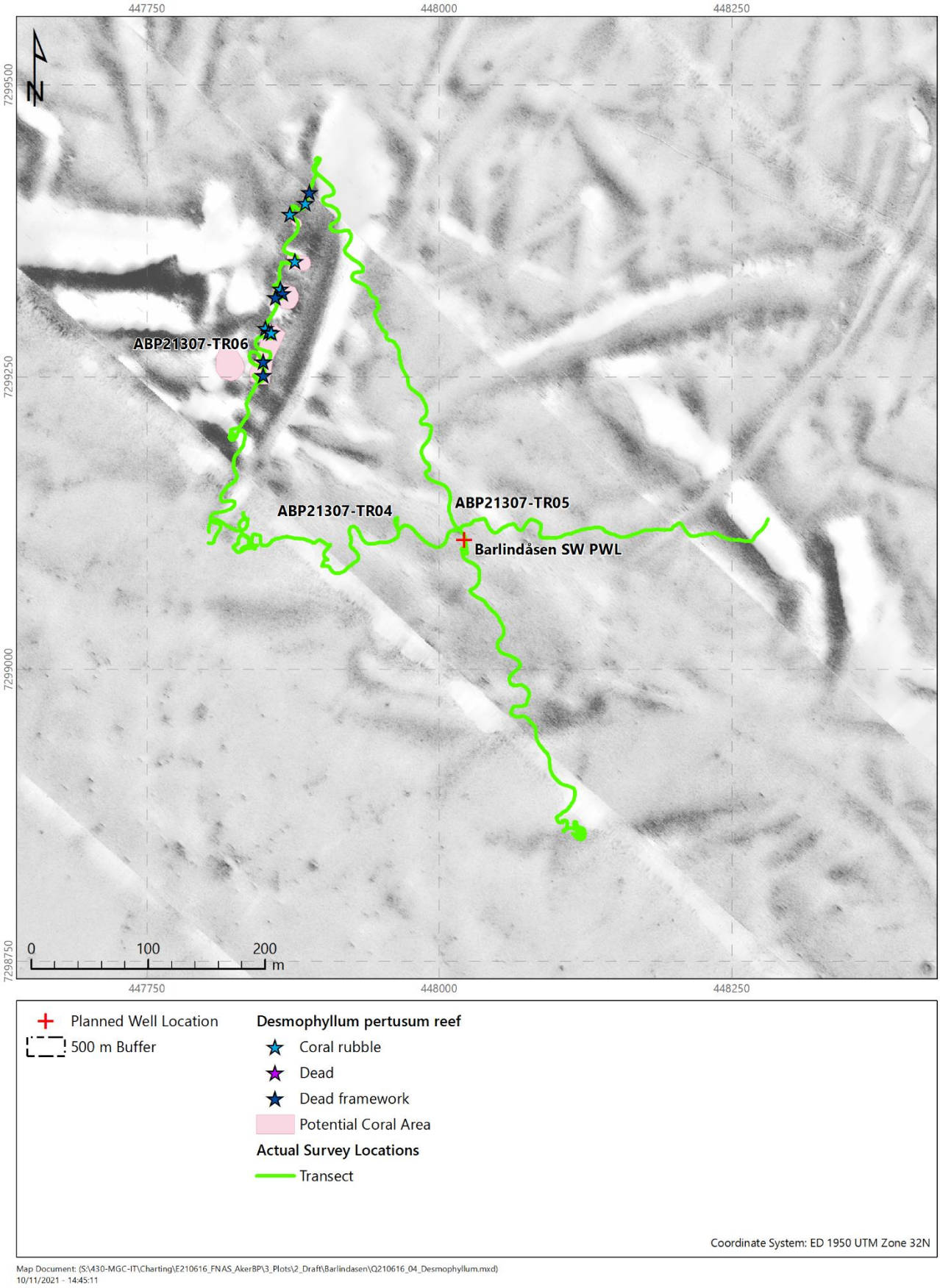


Figure 4.7: Spatial distribution of *Desmophyllum pertusum* structures, Barlindåsen SW PWL

4.4.2 Soft-bottom Coral Gardens

The soft-bottom coral garden species *Isidella lofotensis* was not recorded within the survey area.

4.4.3 Hard-bottom Coral Gardens

Table 4.3 presents a summary of the overall condition assessment for hard-bottom coral gardens from the current survey. shows the location of the hard-bottom corals observed within the survey area.

Hard-bottom coral garden species, *Paragorgia arborea* and *Primnoa resedaeformis* were recorded in the Newt-Barlindåsen survey area and were restricted to areas of coarse substrate and areas where dead framework of *D. pertusum* was present. A total of 85 incidences of gorgonian corals were recorded. The gorgonian coral *P. arborea* was the most frequent and was recorded along seven transects (ABP21307-TR01, ABP21307-TR02A, ABP21307-TR03, ABP21307-TR06, ABP21307-TR07, ABP21307-TR08 and ABP21307-TR09). The gorgonian coral *P. resedaeformis* was recorded along three transects (ABP21307-TR01, ABP21307-TR03 and ABP21307-TR06).

The majority of gorgonian corals were recorded as 'poor' (< 5 specimens per 25 m^2), along seven transects. Along two transects, the coral garden condition was classified as 'fair' (< 5 specimens per 25 m^2). Along two transects transect the coral condition was classified as 'good' (10 to 15 individuals per 25 m^2) and one transects had a coral condition classification of 'excellent' (> 15 specimens per 25 m^2).

Within the Newt survey area, coral gardens were classified as 'fair', 'good' or 'excellent' when associated with *Desmophyllum pertusum* framework. At all other locations, such as ridge features, coral garden species were recorded as 'single *Paragorgia* on boulder' or 'poor'.

Figure 4.8 and Figure 4.9 present the spatial distribution of hard-bottom coral gardens across the survey area.

Table 4.3: Summary of hard-bottom gorgonian coral condition

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]				
Transect	Overall Coral Condition	Easting	Northing	Coral Area in Relation to the 2021 Planned Well Location
Newt PWL				
ABP21307-TR01	Good	447340.1	7301307.6	329 m west
ABP21307-TR01	Good	447531.4	7301305.0	140 m west-south-west
ABP21307-TR01	Fair	447415.8	7301313.2	253 m west
ABP21307-TR01	Fair	447543.3	7301307.3	128 m west-south-west
ABP21307-TR01	Fair	447548.0	7301311.1	122 m west-south-west
Barlindåsen SW PWL				
ABP21307-TR06	Excellent	447 865.6	7 299 321.0	262 m north-west
ABP21307-TR06	Good	447 866.6	7 299 318.3	259 m north-west
ABP21307-TR06	Fair	447 876.0	7 299 385.1	311 m north-north-west
ABP21307-TR06	Fair	447 865.5	7 299 318.1	260 m north-west
ABP21307-TR06	Fair	447 860.0	7 299 318.3	263 m north-west
ABP21307-TR06	Fair	447 861.5	7 299 316.8	261 m north-west
ABP21307-TR06	Fair	447 856.6	7 299 285.6	240 m north-west
ABP21307-TR06	Fair	447 849.5	7 299 251.6	223 m north-west

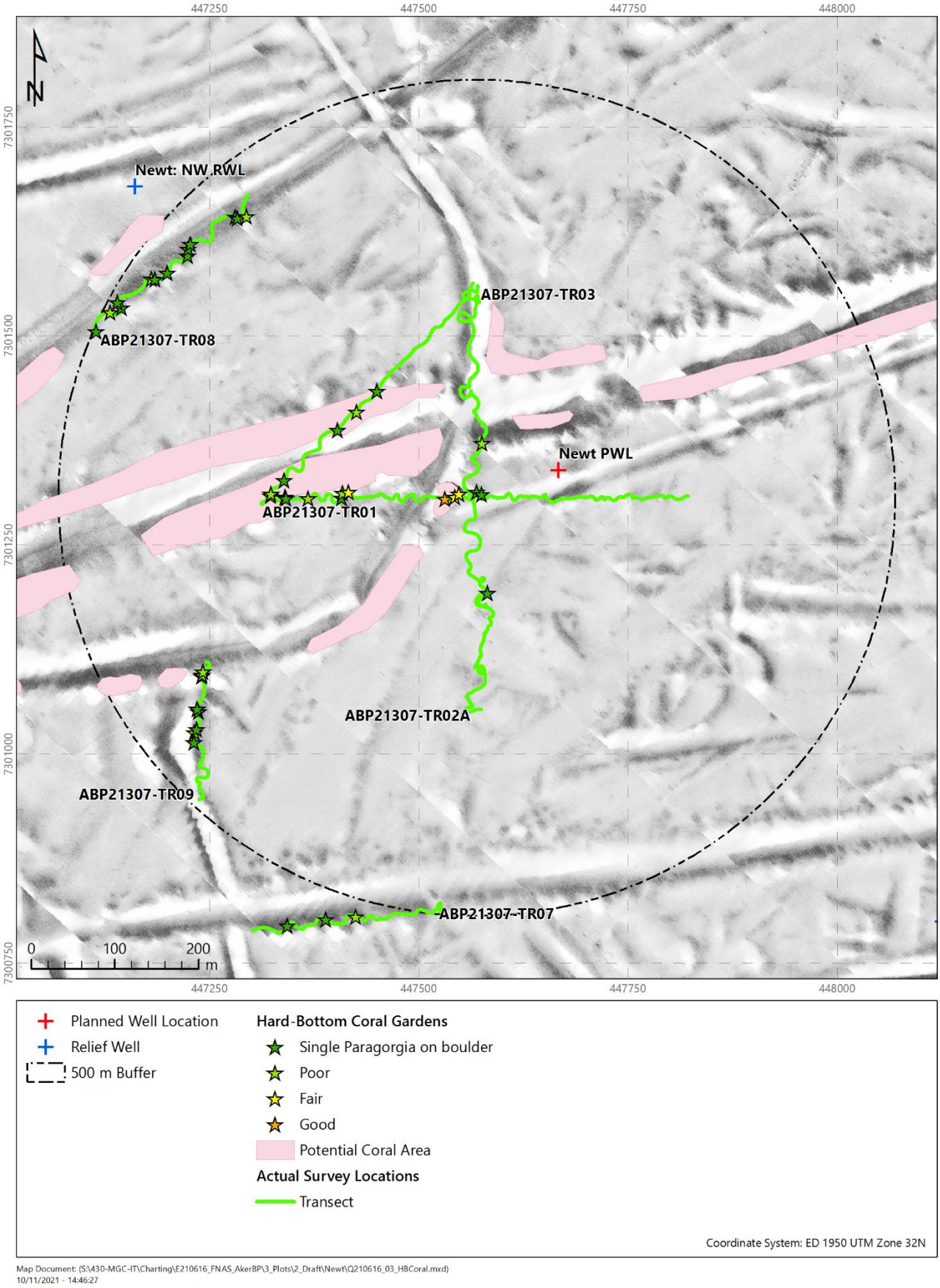


Figure 4.8: Spatial distribution of hard-bottom coral gardens, Newt PWL

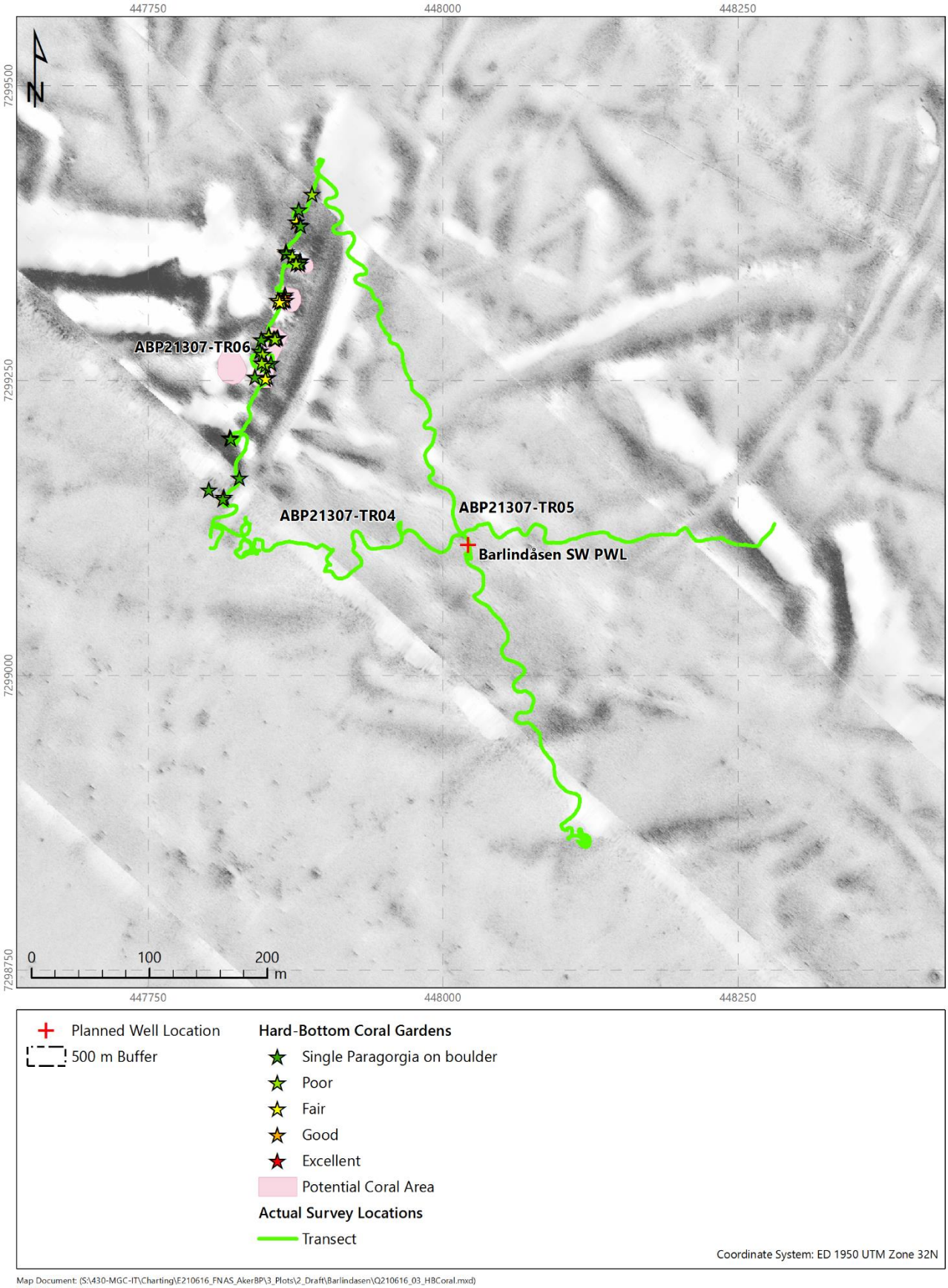


Figure 4.9: Spatial distribution of hard-bottom coral gardens, Barlindåsen SW PWL

4.4.4 Deep-sea Sponge Aggregations

The observed sponge taxa included mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), encrusting sponges (including *Hymedesmia paupertas*), branching sponges (Demospongiae) and erect sponges (including Polymastiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*). Glass sponges (*Asconema* sp.) were observed along all transects. Most sponge observations remain unidentified as identification of many sponges requires microscopic investigation and should not be attempted from image data alone. The seabed along short sections of multiple transects was obscured by sediment disturbed by large number of saithe (*Pollachius virens*) and the strong currents. Where this occurred, the section was recorded as 'no visibility' within the sponge assessments.

4.4.4.1 Soft-bottom sponges

Table 4.4 provides summary statistics for the proportion of soft-bottom sponge abundance classes recorded in the survey area.

Soft-bottom sponges were recorded in low densities across the survey area and included mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), which were recorded along all the transects.

Stalked sponges (*Stylocordyla borealis*) were observed along all transects except transect ABP21307-TR08.

Where present, soft-bottom sponges were recorded as either 'single individual' (< 1 % cover) or 'rare' (< 1 % cover). Small areas along six transects were classified as 'scattered'.

Table 4.4: Summary of soft-bottom sponge cover classification

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 % - 5 % cover]	[5 % – 10 % cover]	[> 10 % cover]
Newt PWL						
ABP21307-TR01	-	-	63.4 % (327 m)	32.3 % (167 m)	-	-
ABP21307-TR02a	-	-	30.6 % (185 m)	37.8 % (228 m)	-	-
ABP21307-TR03	-	-	46.7 % (173 m)	51.4 % (191 m)	-	-
ABP21307-TR07	-	-	97.1 % (215 m)	-		
ABP21307-TR08	87.3 % (210 m)	-	12.7 % (30 m)	-		
ABP21307-TR09	38.1 % (64 m)	-	22.5 % (37 m)	39.4 % (66 m)		
Barlindåsen SW PWL						
ABP21307-TR04	-	-	73.6 % (409 m)	2.8 % (16 m)	-	-

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 % - 5 % cover]	[5 % – 10 % cover]	[> 10 % cover]
ABP21307-TR05	-	-	70.0 % (602 m)	3.7 % (32 m)	-	-
ABP21307-TR06	11.7 % (40 m)	-	65.9 % (225 m)	-	-	-
Key:						
None	Single individual	Rare	Scattered	Common	High	

Notes
* = The remainder of the transect was classified as 'no visibility'
Distances are calculated as a straight line from start coordinates to end coordinates

4.4.4.2 Hard-bottom sponges

Table 4.5provides summary statistics for the proportion of hard-bottom sponge abundance classes recorded in the survey area.

Hard-bottom sponges were recorded along all transects and were particularly associated with the EUNIS habitat 'Deep-sea mixed substrata' (A6.2). Species included erect sponge (Axinellidae, *Phakellia* sp. and *Mycale lingua*), branching sponges (Demospongiae and *Antho dichotoma*) and encrusting sponges (including *Hymedesmia paupertas*).

Where present, hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover). Small sections (< 12 m in length) along two transects were classified as 'common' (5 % to 10 % cover).

Table 4.5: Summary of hard-bottom sponge cover classification

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 % - 5 % cover]	[5 % – 10 % cover]	[> 10 % cover]
Newt PWL						
ABP21307-TR01	11.3 % (58 m)	-	43.6 % (224 m)	37.9 % (195 m)	8.6 % (44 m)	-
ABP21307-TR02a	26.1 % (157 m)	-	17.1 % (103 m)	31.3 % (189 m)	-	-
ABP21307-TR03	4.4 % (17 m)	-	57.2 % (212 m)	30.4 % (113 m)	6.5 % (24 m)	-
ABP21307-TR07	-	-	20.7 % (46 m)	78.0 % (172 m)	-	-
ABP21307-TR08	-	-	63.3 % (152 m)	37.8 % (91 m)	-	-
ABP21307-TR09	22.9 % (38 m)	-	36.1 % (60 m)	43.2 % (72 m)	-	-

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 % - 5 % cover]	[5 % – 10 % cover]	[> 10 % cover]
Barlindåsen SW PWL						
ABP21307-TR04	40.4 % (224 m)	-	24.0 % (133 m)	16.3 % (91 m)	-	-
ABP21307-TR05	16.6 % (143 m)	-	25.4 % (218 m)	25.7 % (221 m)	-	-
ABP21307-TR06	-	-	81.4 % (278 m)	11.7 % (40 m)	-	-
Key:						
None	Single individual	Rare	Scattered	Common	High	

Notes
* = The remainder of the transect was classified as 'no visibility'
Distances are calculated as a straight line from start coordinates to end coordinates

4.4.5 Sea Pens

Sea pens were sparse throughout the survey area, with a total of 12 individuals recorded along three transects (ABP21307-TR04, ABP21307-TR05 and ABP21307-TR09). Where present sea pens were classified as 'poor' (< 5 specimens per 25 m^2). Sea pen species observed included *Virgularia* sp. and *Kophobelemnon stelliferum*. Bioturbation including burrows and mounds, was observed throughout the survey area associated with the soft sediments.

4.4.6 Red List Species

All transects featured species assessed under the Norwegian Red List of Species, with most falling into the category 'least concern'.

The gorgonian coral, *P. arborea* and stony coral is listed as 'near threatened' (NBIC, 2015) and was observed on seven transects (ABP21307-TR01, ABP21307-TR02A, ABP21307-TR03, ABP21307-TR06, ABP21307-TR07, ABP21307-TR08 and ABP21307-TR09). The redfish *Sebastes norvegicus* is listed as 'endangered' (NBIC, 2015). Redfish were observed on all transects but could not be identified to species level.

Table 4.6: Norwegian red list species

Taxon	Common Name	Norwegian Red List Status (NBIC, 2015)
Paragorgia arborea	Bubblegum coral	NT
Sebastidae	Redfish	EN - *Sebastes norvegicus*

Notes
EN = Endangered
NT = Near Threatened

5. Conclusions

Seabed sediments across the survey area comprised gravelly, sandy mud/muddy sand with varying proportions of coarser sediments. This corresponded to the level 3 EUNIS habitats 'Deep-sea mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). The biotope 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631) was observed and coincided with areas of mottled SSS reflectivity particularly on the flanks of iceberg plough marks.

Epifauna associated with mixed substrata included sponges (Porifera including Axinellidae, *Hymedesmia paupertas* and *Mycale lingua*). Other fauna observed included gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobsters (Galatheoidea), sea urchins (*Gracilechinus acutus*) and anemone (*Actinostola callosa*).

Observed fauna associated with the 'Deep-sea mud' habitat was generally sparse. . Recorded fauna included sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), squat lobsters (Galatheoidea) and cushion stars (Valvatida) and mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae).

Fauna associated with the 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' biotope included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis*), file shells (*Acesta excavata*), and anemones (Actiniaria including *Actinostola callosa*).

Fish observed in the survey area included saithe (*Pollachius virens*), redfish (Sebastidae) and tusk (*Brosme brosme*).

Fauna observed during the 2021 survey was typical of the region
(Moen & Svensen, 2004; World Register of Marine Species [WoRMS] Editorial Board, 2021).

Dead coral framework and coral rubble was observed with the survey area. Living *Desmophyllum pertusum* was observed, although with a low percentage cover and total living front area. Therefore these areas were classified as 'dead'.

Two hard-bottom coral species were recorded during the current survey including *Paragorgia arborea* and *Primnoa resedaeformis*. The classifications of the coral condition ranged from 'single *Paragorgia* on boulder' to 'excellent'. Coral condition classified as 'excellent' was found along transect ABP21307-TR06 262 m from the Barlindåsen SW PWL. Within the Newt survey area, coral gardens were classified as 'fair', 'good' or 'excellent' when associated with *Desmophyllum pertusum* framework. At all other locations, such as ridge features, coral garden species were recorded as 'single *Paragorgia* on boulder' or 'poor'.

During the current survey, where present, soft-bottom sponges were predominantly recorded as 'rare' (< 1 % cover) with small areas being classified as 'scattered' (1 – 5 % cover).

During the current survey, where present, hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover) with small sections (< 25 m in length) were classified as 'common' (5 % to 10 % cover).

To represent the OSPAR habitat 'Deep-sea sponge aggregations' soft-bottom sponges must be classified as 'high' (> 10 % cover) density. Therefore, the sponge communities recorded across the Newt-Barlindåsen survey area do not constitute the OSPAR (2010b) listed habitat 'Deep-sea sponge aggregations'.

The coral species *P. arborea* is currently listed as 'near threatened' on the Norwegian Red List (NBIC, 2015). Within the family Sebastidae, *S. norvegicus* is listed as 'endangered' (NBIC, 2015). Redfish were observed but could not be identified to species level. Other taxa recorded in the Newt-Barlindåsen survey area were assessed as 'least concern' or 'not evaluated'.

No other sensitive habitats or species were identified from either the geophysical or photographic data.

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Appendix A

Guidelines on Use of Report

This report (the "Report") was prepared as part of the services (the "Services") provided by Fugro GB Marine Limited ("Fugro") for its client (the "Client") under terms of the relevant contract between the two parties (the "Contract"). The Services were performed by Fugro based on requirements of the Client set out in the Contract or otherwise made known by the Client to Fugro at the time.

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Appendix B

Logs

B.1 Survey Log

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	15:13:42	ABP21307-TR05	Video	SOL	NF	374.1	448 121.0	7 298 857.0	448 118.1	7 298 865.8	9.2	
09/09/2021	15:13:54	ABP21307-TR05	Still	ABP21307-TR05-01	NF		448 121.0	7 298 857.0	448 125.2	7 298 860.5	5.5	
09/09/2021	15:15:01	ABP21307-TR05	Still	ABP21307-TR05-02	NF		448 121.0	7 298 857.0	448 120.4	7 298 864.6	7.6	
09/09/2021	15:15:24	ABP21307-TR05	Still	ABP21307-TR05-03	NF		448 121.0	7 298 857.0	448 125.2	7 298 860.5	5.5	
09/09/2021	15:15:59	ABP21307-TR05	Still	ABP21307-TR05-04	177		448 121.0	7 298 857.0	448 120.7	7 298 854.0	3.0	
09/09/2021	15:18:43	ABP21307-TR05	Still	ABP21307-TR05-05	178		448 121.0	7 298 857.0	448 119.7	7 298 855.6	1.9	
09/09/2021	15:21:18	ABP21307-TR05	Still	ABP21307-TR05-06	179		448 121.0	7 298 857.0	448 109.6	7 298 867.8	15.7	
09/09/2021	15:24:00	ABP21307-TR05	Still	ABP21307-TR05-07	180		448 121.0	7 298 857.0	448 111.3	7 298 882.4	27.1	
09/09/2021	15:25:04	ABP21307-TR05	Still	ABP21307-TR05-08	181		448 121.0	7 298 857.0	448 104.3	7 298 901.1	47.2	
09/09/2021	15:26:05	ABP21307-TR05	Still	ABP21307-TR05-09	182		448 121.0	7 298 857.0	448 093.2	7 298 927.2	75.5	
09/09/2021	15:26:42	ABP21307-TR05	Still	ABP21307-TR05-10	183		448 121.0	7 298 857.0	448 082.7	7 298 940.2	91.6	
09/09/2021	15:27:15	ABP21307-TR05	Still	ABP21307-TR05-11	184		448 121.0	7 298 857.0	448 081.9	7 298 949.0	99.9	
09/09/2021	15:29:10	ABP21307-TR05	Still	ABP21307-TR05-12	185		448 121.0	7 298 857.0	448 061.3	7 298 961.9	120.7	
09/09/2021	15:29:32	ABP21307-TR05	Still	ABP21307-TR05-13	186		448 121.0	7 298 857.0	448 061.7	7 298 966.2	124.2	
09/09/2021	15:29:53	ABP21307-TR05	Still	ABP21307-TR05-14	187		448 121.0	7 298 857.0	448 067.0	7 298 968.2	123.6	
09/09/2021	15:30:06	ABP21307-TR05	Still	ABP21307-TR05-15	188		448 121.0	7 298 857.0	448 070.4	7 298 967.9	121.9	
09/09/2021	15:32:26	ABP21307-TR05	Still	ABP21307-TR05-16	189		448 121.0	7 298 857.0	448 059.6	7 298 988.8	145.4	
09/09/2021	15:32:58	ABP21307-TR05	Still	ABP21307-TR05-17	190		448 121.0	7 298 857.0	448 062.6	7 298 995.9	150.7	
09/09/2021	15:33:54	ABP21307-TR05	Still	ABP21307-TR05-18	NF		448 121.0	7 298 857.0	448 064.4	7 299 009.7	162.9	
09/09/2021	15:34:56	ABP21307-TR05	Still	ABP21307-TR05-19	191		448 121.0	7 298 857.0	448 050.2	7 299 023.7	181.1	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	15:37:22	ABP21307-TR05	Still	ABP21307-TR05-20	192		448 121.0	7 298 857.0	448 030.7	7 299 062.4	224.4	
09/09/2021	15:38:01	ABP21307-TR05	Still	ABP21307-TR05-21	193		448 121.0	7 298 857.0	448 029.0	7 299 069.0	231.1	
09/09/2021	15:40:02	ABP21307-TR05	Still	ABP21307-TR05-22	194		448 121.0	7 298 857.0	448 019.5	7 299 096.5	260.1	
09/09/2021	15:41:08	ABP21307-TR05	Still	ABP21307-TR05-23	195		448 121.0	7 298 857.0	448 023.4	7 299 097.9	259.9	
09/09/2021	15:41:50	ABP21307-TR05	Still	ABP21307-TR05-24	196		448 121.0	7 298 857.0	448 022.4	7 299 111.6	273.0	
09/09/2021	15:43:25	ABP21307-TR05	Still	ABP21307-TR05-25	197		448 121.0	7 298 857.0	448 008.9	7 299 142.2	306.4	
09/09/2021	15:43:39	ABP21307-TR05	Still	ABP21307-TR05-26	NF		448 121.0	7 298 857.0	448 009.5	7 299 145.5	309.3	
09/09/2021	15:44:04	ABP21307-TR05	Still	ABP21307-TR05-27	198		448 121.0	7 298 857.0	448 008.6	7 299 151.1	314.8	
09/09/2021	15:44:42	ABP21307-TR05	Still	ABP21307-TR05-28	199		448 121.0	7 298 857.0	448 003.4	7 299 157.7	322.8	
09/09/2021	15:45:05	ABP21307-TR05	Still	ABP21307-TR05-29	NF		448 121.0	7 298 857.0	447 998.5	7 299 159.6	326.5	
09/09/2021	15:48:01	ABP21307-TR05	Still	ABP21307-TR05-30	200		448 121.0	7 298 857.0	447 990.4	7 299 196.5	363.7	
09/09/2021	15:48:24	ABP21307-TR05	Still	ABP21307-TR05-31	201		448 121.0	7 298 857.0	447 992.3	7 299 202.6	368.8	
09/09/2021	15:50:12	ABP21307-TR05	Still	ABP21307-TR05-32	NF		448 121.0	7 298 857.0	447 986.4	7 299 230.7	397.2	
09/09/2021	15:50:57	ABP21307-TR05	Still	ABP21307-TR05-33	202		448 121.0	7 298 857.0	447 974.1	7 299 248.6	418.2	
09/09/2021	15:52:06	ABP21307-TR05	Still	ABP21307-TR05-34	203		448 121.0	7 298 857.0	447 967.0	7 299 262.3	433.6	
09/09/2021	15:54:34	ABP21307-TR05	Still	ABP21307-TR05-35	NF		448 121.0	7 298 857.0	447 954.5	7 299 283.9	458.2	
09/09/2021	15:55:48	ABP21307-TR05	Still	ABP21307-TR05-36	204		448 121.0	7 298 857.0	447 951.0	7 299 290.6	465.8	
09/09/2021	15:57:28	ABP21307-TR05	Still	ABP21307-TR05-37	205		448 121.0	7 298 857.0	447 945.7	7 299 306.3	482.3	
09/09/2021	15:58:18	ABP21307-TR05	Still	ABP21307-TR05-38	206		448 121.0	7 298 857.0	447 949.0	7 299 310.0	484.6	
09/09/2021	15:59:30	ABP21307-TR05	Still	ABP21307-TR05-39	207		448 121.0	7 298 857.0	447 940.4	7 299 322.6	499.4	
09/09/2021	16:01:10	ABP21307-TR05	Still	ABP21307-TR05-40	208		448 121.0	7 298 857.0	447 925.6	7 299 339.3	520.4	
09/09/2021	16:01:48	ABP21307-TR05	Still	ABP21307-TR05-41	209		448 121.0	7 298 857.0	447 931.5	7 299 339.4	518.3	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	16:02:01	ABP21307-TR05	Still	ABP21307-TR05-42	210		448 121.0	7 298 857.0	447 935.0	7 299 340.2	517.7	
09/09/2021	16:03:33	ABP21307-TR05	Still	ABP21307-TR05-43	211		448 121.0	7 298 857.0	447 922.0	7 299 365.4	546.0	
09/09/2021	16:04:34	ABP21307-TR05	Still	ABP21307-TR05-44	212		448 121.0	7 298 857.0	447 913.0	7 299 374.5	557.7	
09/09/2021	16:05:15	ABP21307-TR05	Still	ABP21307-TR05-45	213		448 121.0	7 298 857.0	447 911.1	7 299 381.9	565.3	
09/09/2021	16:05:20	ABP21307-TR05	Still	ABP21307-TR05-46	NF		448 121.0	7 298 857.0	447 911.1	7 299 382.2	565.6	
09/09/2021	16:05:58	ABP21307-TR05	Still	ABP21307-TR05-47	214		448 121.0	7 298 857.0	447 910.1	7 299 393.8	576.7	
09/09/2021	16:07:47	ABP21307-TR05	Still	ABP21307-TR05-48	215		448 121.0	7 298 857.0	447 898.9	7 299 421.5	606.7	
09/09/2021	16:09:30	ABP21307-TR05	Video	EOL	NF	357.0	448 121.0	7 298 857.0	447 899.7	7 299 436.8	620.6	
09/09/2021	16:14:50	ABP21307-TR06	Video	SOL	217	357	447 895.0	7 299 434.0	447 895.7	7 299 434.3	0.8	
09/09/2021	16:14:50	ABP21307-TR06	Still	ABP21307-TR06-01	217		447 895.0	7 299 434.0	447 895.7	7 299 434.3	0.8	
09/09/2021	16:16:57	ABP21307-TR06	Still	ABP21307-TR06-02	218		447 895.0	7 299 434.0	447 893.9	7 299 421.2	12.8	
09/09/2021	16:17:18	ABP21307-TR06	Still	ABP21307-TR06-03	219		447 895.0	7 299 434.0	447 892.5	7 299 419.4	14.8	
09/09/2021	16:17:58	ABP21307-TR06	Still	ABP21307-TR06-04	220		447 895.0	7 299 434.0	447 892.5	7 299 414.8	19.3	
09/09/2021	16:18:59	ABP21307-TR06	Still	ABP21307-TR06-05	221		447 895.0	7 299 434.0	447 888.4	7 299 407.6	27.2	
09/09/2021	16:19:12	ABP21307-TR06	Still	ABP21307-TR06-06	222		447 895.0	7 299 434.0	447 887.4	7 299 405.3	29.7	
09/09/2021	16:19:53	ABP21307-TR06	Still	ABP21307-TR06-07	223		447 895.0	7 299 434.0	447 885.5	7 299 399.3	36.0	
09/09/2021	16:20:43	ABP21307-TR06	Still	ABP21307-TR06-08	224		447 895.0	7 299 434.0	447 881.2	7 299 392.7	43.5	
09/09/2021	16:21:05	ABP21307-TR06	Still	ABP21307-TR06-09	225		447 895.0	7 299 434.0	447 877.2	7 299 394.2	43.6	
09/09/2021	16:23:06	ABP21307-TR06	Still	ABP21307-TR06-10	226		447 895.0	7 299 434.0	447 876.0	7 299 385.1	52.5	
09/09/2021	16:23:15	ABP21307-TR06	Still	ABP21307-TR06-11	227		447 895.0	7 299 434.0	447 876.4	7 299 385.3	52.2	
09/09/2021	16:23:55	ABP21307-TR06	Still	ABP21307-TR06-12	228		447 895.0	7 299 434.0	447 877.5	7 299 371.6	64.8	
09/09/2021	16:24:11	ABP21307-TR06	Still	ABP21307-TR06-13	NF		447 895.0	7 299 434.0	447 872.4	7 299 367.1	70.6	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	16:24:52	ABP21307-TR06	Still	ABP21307-TR06-14	229		447 895.0	7 299 434.0	447 870.5	7 299 356.5	81.3	
09/09/2021	16:24:58	ABP21307-TR06	Still	ABP21307-TR06-15	230		447 895.0	7 299 434.0	447 872.3	7 299 355.6	81.6	
09/09/2021	16:26:19	ABP21307-TR06	Still	ABP21307-TR06-16	231		447 895.0	7 299 434.0	447 875.0	7 299 349.1	87.2	
09/09/2021	16:31:03	ABP21307-TR06	Still	ABP21307-TR06-17	232		447 895.0	7 299 434.0	447 863.0	7 299 325.2	113.5	
09/09/2021	16:31:23	ABP21307-TR06	Still	ABP21307-TR06-18	233		447 895.0	7 299 434.0	447 865.6	7 299 323.4	114.4	
09/09/2021	16:31:37	ABP21307-TR06	Still	ABP21307-TR06-19	234		447 895.0	7 299 434.0	447 865.8	7 299 321.1	116.6	
09/09/2021	16:31:53	ABP21307-TR06	Still	ABP21307-TR06-20	235		447 895.0	7 299 434.0	447 865.0	7 299 320.4	117.5	
09/09/2021	16:32:09	ABP21307-TR06	Still	ABP21307-TR06-21	236		447 895.0	7 299 434.0	447 865.7	7 299 319.2	118.5	
09/09/2021	16:32:27	ABP21307-TR06	Still	ABP21307-TR06-22	237		447 895.0	7 299 434.0	447 866.1	7 299 318.5	119.0	
09/09/2021	16:32:32	ABP21307-TR06	Still	ABP21307-TR06-23	238		447 895.0	7 299 434.0	447 866.6	7 299 318.3	119.1	
09/09/2021	16:33:40	ABP21307-TR06	Still	ABP21307-TR06-24	239		447 895.0	7 299 434.0	447 861.7	7 299 317.0	121.7	
09/09/2021	16:33:47	ABP21307-TR06	Still	ABP21307-TR06-25	240		447 895.0	7 299 434.0	447 861.2	7 299 315.8	122.9	
09/09/2021	16:34:21	ABP21307-TR06	Still	ABP21307-TR06-26	241		447 895.0	7 299 434.0	447 859.5	7 299 309.2	129.7	
09/09/2021	16:34:55	ABP21307-TR06	Still	ABP21307-TR06-27	NF		447 895.0	7 299 434.0	447 855.7	7 299 299.1	140.5	
09/09/2021	16:35:29	ABP21307-TR06	Still	ABP21307-TR06-28	242		447 895.0	7 299 434.0	447 852.0	7 299 292.8	147.6	
09/09/2021	16:35:49	ABP21307-TR06	Still	ABP21307-TR06-29	NF		447 895.0	7 299 434.0	447 856.1	7 299 287.8	151.3	
09/09/2021	16:36:02	ABP21307-TR06	Still	ABP21307-TR06-30	243		447 895.0	7 299 434.0	447 855.6	7 299 287.7	151.6	
09/09/2021	16:37:34	ABP21307-TR06	Still	ABP21307-TR06-31	NF		447 895.0	7 299 434.0	447 843.5	7 299 275.1	167.0	
09/09/2021	16:37:53	ABP21307-TR06	Still	ABP21307-TR06-32	244		447 895.0	7 299 434.0	447 848.6	7 299 273.6	167.0	
09/09/2021	16:38:58	ABP21307-TR06	Still	ABP21307-TR06-33	245		447 895.0	7 299 434.0	447 847.9	7 299 264.6	175.9	
09/09/2021	16:39:07	ABP21307-TR06	Still	ABP21307-TR06-34	NF		447 895.0	7 299 434.0	447 847.2	7 299 265.8	174.9	
09/09/2021	16:39:58	ABP21307-TR06	Still	ABP21307-TR06-35	246		447 895.0	7 299 434.0	447 838.7	7 299 262.8	180.2	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	16:40:44	ABP21307-TR06	Still	ABP21307-TR06-36	247		447 895.0	7 299 434.0	447 851.5	7 299 252.9	186.3	
09/09/2021	16:40:51	ABP21307-TR06	Still	ABP21307-TR06-37	248		447 895.0	7 299 434.0	447 850.3	7 299 252.8	186.7	
09/09/2021	16:41:07	ABP21307-TR06	Still	ABP21307-TR06-38	249		447 895.0	7 299 434.0	447 851.3	7 299 246.9	192.2	
09/09/2021	16:47:37	ABP21307-TR06	Still	ABP21307-TR06-39	250		447 895.0	7 299 434.0	447 829.3	7 299 204.6	238.6	
09/09/2021	16:48:44	ABP21307-TR06	Still	ABP21307-TR06-40	251		447 895.0	7 299 434.0	447 825.6	7 299 184.1	259.4	
09/09/2021	16:49:29	ABP21307-TR06	Still	ABP21307-TR06-41	NF		447 895.0	7 299 434.0	447 824.9	7 299 178.4	265.1	
09/09/2021	16:50:05	ABP21307-TR06	Still	ABP21307-TR06-42	NF		447 895.0	7 299 434.0	447 824.2	7 299 175.0	268.5	
09/09/2021	16:50:43	ABP21307-TR06	Still	ABP21307-TR06-43	252		447 895.0	7 299 434.0	447 823.9	7 299 170.9	272.5	
09/09/2021	16:51:11	ABP21307-TR06	Still	ABP21307-TR06-44	253		447 895.0	7 299 434.0	447 826.2	7 299 167.7	275.0	
09/09/2021	16:51:46	ABP21307-TR06	Still	ABP21307-TR06-45	254		447 895.0	7 299 434.0	447 821.7	7 299 157.6	286.0	
09/09/2021	16:51:55	ABP21307-TR06	Still	ABP21307-TR06-46	255		447 895.0	7 299 434.0	447 820.4	7 299 157.6	286.3	
09/09/2021	16:52:22	ABP21307-TR06	Still	ABP21307-TR06-47	256		447 895.0	7 299 434.0	447 814.4	7 299 151.4	293.9	
09/09/2021	16:52:31	ABP21307-TR06	Still	ABP21307-TR06-48	257		447 895.0	7 299 434.0	447 813.5	7 299 148.9	296.6	
09/09/2021	16:53:20	ABP21307-TR06	Still	ABP21307-TR06-49	258		447 895.0	7 299 434.0	447 818.2	7 299 143.3	300.7	
09/09/2021	16:54:25	ABP21307-TR06	Still	ABP21307-TR06-50	NF		447 895.0	7 299 434.0	447 811.8	7 299 134.2	311.1	
09/09/2021	16:55:19	ABP21307-TR06	Still	ABP21307-TR06-51	259		447 895.0	7 299 434.0	447 807.3	7 299 124.8	321.4	
09/09/2021	16:56:30	ABP21307-TR06	Still	ABP21307-TR06-52	NF		447 895.0	7 299 434.0	447 807.5	7 299 107.8	337.7	
09/09/2021	16:56:43	ABP21307-TR06	Video	EOL	260	371	447 895.0	7 299 434.0	447 805.4	7 299 108.4	337.7	
09/09/2021	17:03:22	ABP21307-TR04	Video	SOL	261	371	447 808.0	7 299 110.7	447 802.9	7 299 119.6	10.2	
09/09/2021	17:03:22	ABP21307-TR04	Still	ABP21307-TR04-01	261		447 808.0	7 299 110.7	447 802.9	7 299 119.6	10.2	
09/09/2021	17:04:13	ABP21307-TR04	Still	ABP21307-TR04-02	262		447 808.0	7 299 110.7	447 814.3	7 299 198.3	87.9	
09/09/2021	17:04:56	ABP21307-TR04	Still	ABP21307-TR04-03	263		447 808.0	7 299 110.7	447 817.5	7 299 122.9	15.5	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	17:09:23	ABP21307-TR04	Still	ABP21307-TR04-04	264		447 808.0	7 299 110.7	447 835.7	7 299 113.3	27.8	
09/09/2021	17:10:30	ABP21307-TR04	Still	ABP21307-TR04-05	NF		447 808.0	7 299 110.7	447 841.2	7 299 103.5	34.0	
09/09/2021	17:11:39	ABP21307-TR04	Still	ABP21307-TR04-06	265		447 808.0	7 299 110.7	447 841.6	7 299 104.1	34.3	
09/09/2021	17:18:48	ABP21307-TR04	Still	ABP21307-TR04-07	266		447 808.0	7 299 110.7	447 837.3	7 299 107.6	29.4	
09/09/2021	17:22:57	ABP21307-TR04	Still	ABP21307-TR04-08	267		447 808.0	7 299 110.7	447 840.3	7 299 111.4	32.3	
09/09/2021	17:25:47	ABP21307-TR04	Still	ABP21307-TR04-09	268		447 808.0	7 299 110.7	447 856.3	7 299 109.5	48.3	
09/09/2021	17:31:19	ABP21307-TR04	Still	ABP21307-TR04-10	269		447 808.0	7 299 110.7	447 907.0	7 299 106.0	99.2	
09/09/2021	17:33:56	ABP21307-TR04	Still	ABP21307-TR04-11	270		447 808.0	7 299 110.7	447 906.1	7 299 086.4	101.1	
09/09/2021	17:36:21	ABP21307-TR04	Still	ABP21307-TR04-12	271		447 808.0	7 299 110.7	447 924.0	7 299 107.6	116.0	
09/09/2021	17:36:38	ABP21307-TR04	Still	ABP21307-TR04-13	272		447 808.0	7 299 110.7	447 924.8	7 299 108.3	116.8	
09/09/2021	17:38:19	ABP21307-TR04	Still	ABP21307-TR04-14	NF		447 808.0	7 299 110.7	447 924.1	7 299 113.8	116.1	
09/09/2021	17:39:41	ABP21307-TR04	Still	ABP21307-TR04-15	273		447 808.0	7 299 110.7	447 940.8	7 299 106.9	132.9	
09/09/2021	17:42:46	ABP21307-TR04	Still	ABP21307-TR04-16	NF		447 808.0	7 299 110.7	447 970.0	7 299 124.4	162.6	
09/09/2021	17:43:35	ABP21307-TR04	Still	ABP21307-TR04-17	274		447 808.0	7 299 110.7	447 980.2	7 299 117.0	172.4	
09/09/2021	17:46:35	ABP21307-TR04	Still	ABP21307-TR04-18	275		447 808.0	7 299 110.7	448 019.2	7 299 122.2	211.5	
09/09/2021	17:48:19	ABP21307-TR04	Still	ABP21307-TR04-19	276		447 808.0	7 299 110.7	448 033.3	7 299 127.6	225.9	
09/09/2021	17:48:46	ABP21307-TR04	Still	ABP21307-TR04-20	277		447 808.0	7 299 110.7	448 036.0	7 299 127.7	228.6	
09/09/2021	17:53:18	ABP21307-TR04	Still	ABP21307-TR04-21	278		447 808.0	7 299 110.7	448 087.0	7 299 121.2	279.2	
09/09/2021	17:53:35	ABP21307-TR04	Still	ABP21307-TR04-22	279		447 808.0	7 299 110.7	448 085.2	7 299 115.6	277.3	
09/09/2021	17:53:44	ABP21307-TR04	Still	ABP21307-TR04-23	280		447 808.0	7 299 110.7	448 086.3	7 299 114.2	278.3	
09/09/2021	17:55:35	ABP21307-TR04	Still	ABP21307-TR04-24	281		447 808.0	7 299 110.7	448 109.8	7 299 115.8	301.8	
09/09/2021	17:57:48	ABP21307-TR04	Still	ABP21307-TR04-25	282		447 808.0	7 299 110.7	448 143.1	7 299 116.6	335.2	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
09/09/2021	17:59:31	ABP21307-TR04	Still	ABP21307-TR04-26	283		447 808.0	7 299 110.7	448 169.3	7 299 115.9	361.3	
09/09/2021	18:03:05	ABP21307-TR04	Still	ABP21307-TR04-27	284		447 808.0	7 299 110.7	448 210.1	7 299 118.4	402.1	
09/09/2021	18:03:35	ABP21307-TR04	Still	ABP21307-TR04-28	NF		447 808.0	7 299 110.7	448 222.3	7 299 114.0	414.3	
09/09/2021	18:05:17	ABP21307-TR04	Still	ABP21307-TR04-29	285		447 808.0	7 299 110.7	448 243.4	7 299 112.4	435.4	
09/09/2021	18:05:21	ABP21307-TR04	Still	ABP21307-TR04-30	286		447 808.0	7 299 110.7	448 244.0	7 299 112.2	436.0	
09/09/2021	18:06:33	ABP21307-TR04	Still	ABP21307-TR04-31	287		447 808.0	7 299 110.7	448 256.0	7 299 111.1	448.0	
09/09/2021	18:07:58	ABP21307-TR04	Still	ABP21307-TR04-32	288		447 808.0	7 299 110.7	448 275.3	7 299 118.9	467.3	
09/09/2021	18:08:31	ABP21307-TR04	Video	EOL	NF	358	447 808.0	7 299 110.7	448 282.0	7 299 131.4	474.5	
11/09/2021	15:23:51	ABP21307-TR02A	Video	SOL	309	348	447 569.2	7 301 056.3	447 567.8	7 301 052.3	4.2	
11/09/2021	15:23:47	ABP21307-TR02A	Still	ABP21307-TR02A-01	NF		447 569.2	7 301 056.3	447 568.7	7 301 053.1	3.2	
11/09/2021	15:28:32	ABP21307-TR02A	Still	ABP21307-TR02A-02	310		447 569.2	7 301 056.3	447 575.4	7 301 104.7	48.8	
11/09/2021	15:44:10	ABP21307-TR02A	Still	ABP21307-TR02A-03	311		447 569.2	7 301 056.3	447 579.5	7 301 175.8	119.9	
11/09/2021	15:52:06	ABP21307-TR02A	Still	ABP21307-TR02A-04	312		447 569.2	7 301 056.3	447 559.3	7 301 216.5	160.5	
11/09/2021	15:53:09	ABP21307-TR02A	Still	ABP21307-TR02A-05	313		447 569.2	7 301 056.3	447 560.4	7 301 228.5	172.4	
11/09/2021	15:53:48	ABP21307-TR02A	Still	ABP21307-TR02A-06	314		447 569.2	7 301 056.3	447 559.9	7 301 243.2	187.1	
11/09/2021	15:55:20	ABP21307-TR02A	Still	ABP21307-TR02A-07	315		447 569.2	7 301 056.3	447 570.5	7 301 261.1	204.8	
11/09/2021	15:56:15	ABP21307-TR02A	Still	ABP21307-TR02A-08	316		447 569.2	7 301 056.3	447 554.3	7 301 267.4	211.6	
11/09/2021	15:56:28	ABP21307-TR02A	Still	ABP21307-TR02A-09	317		447 569.2	7 301 056.3	447 554.1	7 301 271.5	215.7	
11/09/2021	15:57:40	ABP21307-TR02A	Still	ABP21307-TR02A-10	318		447 569.2	7 301 056.3	447 566.4	7 301 294.4	238.1	
11/09/2021	15:59:19	ABP21307-TR02A	Still	ABP21307-TR02A-11	319		447 569.2	7 301 056.3	447 553.8	7 301 327.0	271.1	
11/09/2021	16:00:04	ABP21307-TR02A	Still	ABP21307-TR02A-12	320		447 569.2	7 301 056.3	447 571.0	7 301 337.9	281.6	
11/09/2021	16:00:41	ABP21307-TR02A	Still	ABP21307-TR02A-13	321		447 569.2	7 301 056.3	447 568.3	7 301 348.3	292.0	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	16:00:52	ABP21307-TR02A	Still	ABP21307-TR02A-14	322		447 569.2	7 301 056.3	447 564.3	7 301 350.4	294.1	
11/09/2021	16:03:36	ABP21307-TR02A	Still	ABP21307-TR02A-15	323		447 569.2	7 301 056.3	447 573.2	7 301 363.3	307.0	
11/09/2021	16:03:59	ABP21307-TR02A	Still	ABP21307-TR02A-16	NF		447 569.2	7 301 056.3	447 575.3	7 301 371.3	315.1	
11/09/2021	16:04:00	ABP21307-TR02A	Still	ABP21307-TR02A-17	324		447 569.2	7 301 056.3	447 575.3	7 301 371.3	315.1	
11/09/2021	16:06:05	ABP21307-TR02A	Still	ABP21307-TR02A-18	325		447 569.2	7 301 056.3	447 570.1	7 301 402.1	345.8	
11/09/2021	16:06:54	ABP21307-TR02A	Still	ABP21307-TR02A-19	326		447 569.2	7 301 056.3	447 567.9	7 301 410.4	354.1	
11/09/2021	16:07:08	ABP21307-TR02A	Still	ABP21307-TR02A-20	327		447 569.2	7 301 056.3	447 570.6	7 301 414.4	358.1	
11/09/2021	16:12:37	ABP21307-TR02A	Still	ABP21307-TR02A-21	328		447 569.2	7 301 056.3	447 569.5	7 301 457.1	400.8	
11/09/2021	16:14:33	ABP21307-TR02A	Still	ABP21307-TR02A-22	329		447 569.2	7 301 056.3	447 566.5	7 301 507.8	451.5	
11/09/2021	16:15:47	ABP21307-TR02A	Still	ABP21307-TR02A-23	NF		447 569.2	7 301 056.3	447 550.8	7 301 516.5	460.5	
11/09/2021	16:16:28	ABP21307-TR02A	Video	EOL	NF	351	447 569.2	7 301 056.3	447 550.7	7 301 529.5	473.6	
11/09/2021	16:30:08	ABP21307-TR03	Video	SOL	331	351	447 569.2	7 301 556.3	447 570.1	7 301 559.5	3.3	
11/09/2021	16:32:41	ABP21307-TR03	Still	ABP21307-TR03-01	332		447 569.2	7 301 556.3	447 565.5	7 301 553.9	4.4	
11/09/2021	16:33:45	ABP21307-TR03	Still	ABP21307-TR03-02	333		447 569.2	7 301 556.3	447 560.4	7 301 553.9	9.1	
11/09/2021	16:34:17	ABP21307-TR03	Still	ABP21307-TR03-03	NF		447 569.2	7 301 556.3	447 560.2	7 301 544.4	14.9	
11/09/2021	16:34:48	ABP21307-TR03	Still	ABP21307-TR03-04	334		447 569.2	7 301 556.3	447 554.9	7 301 542.2	20.1	
11/09/2021	16:35:12	ABP21307-TR03	Still	ABP21307-TR03-05	335		447 569.2	7 301 556.3	447 553.0	7 301 541.2	22.1	
11/09/2021	16:35:37	ABP21307-TR03	Still	ABP21307-TR03-06	336		447 569.2	7 301 556.3	447 548.7	7 301 538.6	27.1	
11/09/2021	16:37:07	ABP21307-TR03	Still	ABP21307-TR03-07	337		447 569.2	7 301 556.3	447 542.5	7 301 530.7	37.0	
11/09/2021	16:38:47	ABP21307-TR03	Still	ABP21307-TR03-08	338		447 569.2	7 301 556.3	447 532.5	7 301 519.4	52.0	
11/09/2021	16:39:25	ABP21307-TR03	Still	ABP21307-TR03-09	339		447 569.2	7 301 556.3	447 525.9	7 301 511.1	62.6	
11/09/2021	16:40:01	ABP21307-TR03	Still	ABP21307-TR03-10	340		447 569.2	7 301 556.3	447 520.5	7 301 509.6	67.4	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	16:42:15	ABP21307-TR03	Still	ABP21307-TR03-11	341		447 569.2	7 301 556.3	447 492.7	7 301 482.2	106.5	
11/09/2021	16:43:48	ABP21307-TR03	Still	ABP21307-TR03-12	342		447 569.2	7 301 556.3	447 475.1	7 301 463.7	132.0	
11/09/2021	16:46:10	ABP21307-TR03	Still	ABP21307-TR03-13	343		447 569.2	7 301 556.3	447 450.2	7 301 433.8	170.8	
11/09/2021	16:47:32	ABP21307-TR03	Still	ABP21307-TR03-14	344		447 569.2	7 301 556.3	447 431.9	7 301 419.2	194.1	
11/09/2021	16:47:46	ABP21307-TR03	Still	ABP21307-TR03-15	345		447 569.2	7 301 556.3	447 431.3	7 301 418.1	195.2	
11/09/2021	16:48:04	ABP21307-TR03	Still	ABP21307-TR03-16	346		447 569.2	7 301 556.3	447 429.2	7 301 415.8	198.3	
11/09/2021	16:48:10	ABP21307-TR03	Still	ABP21307-TR03-17	NF		447 569.2	7 301 556.3	447 428.5	7 301 415.3	199.2	
11/09/2021	16:48:24	ABP21307-TR03	Still	ABP21307-TR03-18	347		447 569.2	7 301 556.3	447 427.7	7 301 411.8	202.3	
11/09/2021	16:48:38	ABP21307-TR03	Still	ABP21307-TR03-19	348		447 569.2	7 301 556.3	447 425.8	7 301 409.4	205.3	
11/09/2021	16:48:58	ABP21307-TR03	Still	ABP21307-TR03-20	349		447 569.2	7 301 556.3	447 421.1	7 301 407.9	209.7	
11/09/2021	16:49:09	ABP21307-TR03	Still	ABP21307-TR03-21	350		447 569.2	7 301 556.3	447 418.8	7 301 405.6	212.9	
11/09/2021	16:50:02	ABP21307-TR03	Still	ABP21307-TR03-22	NF		447 569.2	7 301 556.3	447 409.3	7 301 394.8	227.3	
11/09/2021	16:50:46	ABP21307-TR03	Still	ABP21307-TR03-23	351		447 569.2	7 301 556.3	447 403.0	7 301 387.8	236.7	
11/09/2021	16:50:55	ABP21307-TR03	Still	ABP21307-TR03-24	352		447 569.2	7 301 556.3	447 402.0	7 301 387.6	237.5	
11/09/2021	16:55:02	ABP21307-TR03	Still	ABP21307-TR03-25	353		447 569.2	7 301 556.3	447 351.9	7 301 341.3	305.7	
11/09/2021	16:55:35	ABP21307-TR03	Still	ABP21307-TR03-26	354		447 569.2	7 301 556.3	447 343.3	7 301 337.5	314.5	
11/09/2021	16:56:06	ABP21307-TR03	Still	ABP21307-TR03-27	355		447 569.2	7 301 556.3	447 340.3	7 301 328.5	322.9	
11/09/2021	16:56:16	ABP21307-TR03	Still	ABP21307-TR03-28	NF		447 569.2	7 301 556.3	447 338.8	7 301 327.2	324.9	
11/09/2021	16:56:29	ABP21307-TR03	Still	ABP21307-TR03-29	356		447 569.2	7 301 556.3	447 337.1	7 301 323.8	328.5	
11/09/2021	16:56:36	ABP21307-TR03	Still	ABP21307-TR03-30	357		447 569.2	7 301 556.3	447 336.0	7 301 323.0	329.9	
11/09/2021	16:56:47	ABP21307-TR03	Still	ABP21307-TR03-31	358		447 569.2	7 301 556.3	447 334.6	7 301 320.5	332.6	
11/09/2021	16:57:23	ABP21307-TR03	Still	ABP21307-TR03-32	359		447 569.2	7 301 556.3	447 325.8	7 301 318.2	340.5	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	16:57:39	ABP21307-TR03	Still	ABP21307-TR03-33	360		447 569.2	7 301 556.3	447 324.6	7 301 315.7	343.1	
11/09/2021	16:57:44	ABP21307-TR03	Still	ABP21307-TR03-34	361		447 569.2	7 301 556.3	447 323.3	7 301 315.5	344.2	
11/09/2021	16:57:52	ABP21307-TR03	Still	ABP21307-TR03-35	362		447 569.2	7 301 556.3	447 322.8	7 301 313.7	345.8	
11/09/2021	16:58:05	ABP21307-TR03	Still	ABP21307-TR03-36	363		447 569.2	7 301 556.3	447 324.4	7 301 311.2	346.4	
11/09/2021	16:58:57	ABP21307-TR03	Still	ABP21307-TR03-37	364		447 569.2	7 301 556.3	447 318.3	7 301 304.1	355.7	
11/09/2021	16:59:12	ABP21307-TR03	Video	EOL	NF	344	447 569.2	7 301 556.3	447 318.6	7 301 304.4	355.4	
11/09/2021	17:06:41	ABP21307-TR01	Video	SOL	NF	344	447 319.2	7 301 306.3	447 313.1	7 301 300.8	8.3	
11/09/2021	17:07:42	ABP21307-TR01	Still	ABP21307-TR01-01	366		447 319.2	7 301 306.3	447 322.3	7 301 309.5	4.4	
11/09/2021	17:07:49	ABP21307-TR01	Still	ABP21307-TR01-02	367		447 319.2	7 301 306.3	447 322.8	7 301 309.2	4.6	
11/09/2021	17:08:05	ABP21307-TR01	Still	ABP21307-TR01-03	368		447 319.2	7 301 306.3	447 326.6	7 301 307.3	7.4	
11/09/2021	17:08:59	ABP21307-TR01	Still	ABP21307-TR01-04	369		447 319.2	7 301 306.3	447 340.9	7 301 307.8	21.8	
11/09/2021	17:09:09	ABP21307-TR01	Still	ABP21307-TR01-05	370		447 319.2	7 301 306.3	447 342.0	7 301 306.4	22.8	
11/09/2021	17:09:23	ABP21307-TR01	Still	ABP21307-TR01-06	371		447 319.2	7 301 306.3	447 343.3	7 301 316.7	26.3	
11/09/2021	17:09:30	ABP21307-TR01	Still	ABP21307-TR01-07	372		447 319.2	7 301 306.3	447 345.5	7 301 305.4	26.4	
11/09/2021	17:09:36	ABP21307-TR01	Still	ABP21307-TR01-08	373		447 319.2	7 301 306.3	447 346.3	7 301 304.1	27.2	
11/09/2021	17:10:39	ABP21307-TR01	Still	ABP21307-TR01-09	374		447 319.2	7 301 306.3	447 367.0	7 301 305.5	47.8	
11/09/2021	17:12:09	ABP21307-TR01	Still	ABP21307-TR01-10	375		447 319.2	7 301 306.3	447 381.7	7 301 303.7	62.6	
11/09/2021	17:12:15	ABP21307-TR01	Still	ABP21307-TR01-11	376		447 319.2	7 301 306.3	447 382.2	7 301 303.5	63.0	
11/09/2021	17:12:54	ABP21307-TR01	Still	ABP21307-TR01-12	377		447 319.2	7 301 306.3	447 388.4	7 301 305.6	69.2	
11/09/2021	17:13:13	ABP21307-TR01	Still	ABP21307-TR01-13	378		447 319.2	7 301 306.3	447 389.3	7 301 309.2	70.2	
11/09/2021	17:13:20	ABP21307-TR01	Still	ABP21307-TR01-14	379		447 319.2	7 301 306.3	447 389.5	7 301 310.0	70.3	
11/09/2021	17:13:55	ABP21307-TR01	Still	ABP21307-TR01-15	380		447 319.2	7 301 306.3	447 396.4	7 301 303.5	77.3	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	17:14:21	ABP21307-TR01	Still	ABP21307-TR01-16	381		447 319.2	7 301 306.3	447 403.2	7 301 300.3	84.2	
11/09/2021	17:14:27	ABP21307-TR01	Still	ABP21307-TR01-17	382		447 319.2	7 301 306.3	447 406.3	7 301 301.3	87.2	
11/09/2021	17:14:35	ABP21307-TR01	Still	ABP21307-TR01-18	383		447 319.2	7 301 306.3	447 407.6	7 301 303.6	88.4	
11/09/2021	17:14:48	ABP21307-TR01	Still	ABP21307-TR01-19	384		447 319.2	7 301 306.3	447 407.9	7 301 309.7	88.8	
11/09/2021	17:14:55	ABP21307-TR01	Still	ABP21307-TR01-20	385		447 319.2	7 301 306.3	447 408.6	7 301 311.8	89.6	
11/09/2021	17:15:14	ABP21307-TR01	Still	ABP21307-TR01-21	386		447 319.2	7 301 306.3	447 414.5	7 301 314.2	95.6	
11/09/2021	17:15:22	ABP21307-TR01	Still	ABP21307-TR01-22	387		447 319.2	7 301 306.3	447 417.8	7 301 312.9	98.8	
11/09/2021	17:18:19	ABP21307-TR01	Still	ABP21307-TR01-23	388		447 319.2	7 301 306.3	447 463.1	7 301 306.2	143.9	
11/09/2021	17:19:46	ABP21307-TR01	Still	ABP21307-TR01-24	389		447 319.2	7 301 306.3	447 475.1	7 301 310.7	156.0	
11/09/2021	17:20:21	ABP21307-TR01	Still	ABP21307-TR01-25	390		447 319.2	7 301 306.3	447 479.4	7 301 301.3	160.3	
11/09/2021	17:21:13	ABP21307-TR01	Still	ABP21307-TR01-26	391		447 319.2	7 301 306.3	447 490.8	7 301 309.7	171.7	
11/09/2021	17:23:41	ABP21307-TR01	Still	ABP21307-TR01-27	392		447 319.2	7 301 306.3	447 530.0	7 301 305.1	210.8	
11/09/2021	17:23:46	ABP21307-TR01	Still	ABP21307-TR01-28	393		447 319.2	7 301 306.3	447 531.4	7 301 305.0	212.2	
11/09/2021	17:24:00	ABP21307-TR01	Still	ABP21307-TR01-29	394		447 319.2	7 301 306.3	447 532.0	7 301 303.2	212.8	
11/09/2021	17:24:07	ABP21307-TR01	Still	ABP21307-TR01-30	395		447 319.2	7 301 306.3	447 535.3	7 301 301.9	216.1	
11/09/2021	17:24:14	ABP21307-TR01	Still	ABP21307-TR01-31	396		447 319.2	7 301 306.3	447 537.7	7 301 303.3	218.6	
11/09/2021	17:24:29	ABP21307-TR01	Still	ABP21307-TR01-32	397		447 319.2	7 301 306.3	447 543.0	7 301 306.6	223.8	
11/09/2021	17:24:35	ABP21307-TR01	Still	ABP21307-TR01-33	398		447 319.2	7 301 306.3	447 545.2	7 301 308.1	226.0	
11/09/2021	17:24:41	ABP21307-TR01	Still	ABP21307-TR01-34	399		447 319.2	7 301 306.3	447 546.0	7 301 308.7	226.8	
11/09/2021	17:24:53	ABP21307-TR01	Still	ABP21307-TR01-35	400		447 319.2	7 301 306.3	447 548.0	7 301 310.6	228.8	
11/09/2021	17:24:57	ABP21307-TR01	Still	ABP21307-TR01-36	NF		447 319.2	7 301 306.3	447 548.0	7 301 311.1	228.9	
11/09/2021	17:25:08	ABP21307-TR01	Still	No photo	401		447 319.2	7 301 306.3	447 551.5	7 301 311.7	232.3	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	17:26:28	ABP21307-TR01	Still	No photo	402		447 319.2	7 301 306.3	447 568.3	7 301 309.7	249.1	
11/09/2021	17:26:34	ABP21307-TR01	Still	ABP21307-TR01-37	403		447 319.2	7 301 306.3	447 568.7	7 301 311.2	249.5	
11/09/2021	17:26:46	ABP21307-TR01	Still	ABP21307-TR01-38	404		447 319.2	7 301 306.3	447 569.1	7 301 312.3	249.9	
11/09/2021	17:27:29	ABP21307-TR01	Still	ABP21307-TR01-39	405		447 319.2	7 301 306.3	447 575.0	7 301 310.8	255.8	
11/09/2021	17:28:27	ABP21307-TR01	Still	ABP21307-TR01-40	406		447 319.2	7 301 306.3	447 583.3	7 301 308.2	264.1	
11/09/2021	17:29:44	ABP21307-TR01	Still	ABP21307-TR01-41	NF		447 319.2	7 301 306.3	447 604.7	7 301 309.1	285.5	
11/09/2021	17:30:49	ABP21307-TR01	Still	ABP21307-TR01-42	407		447 319.2	7 301 306.3	447 611.2	7 301 305.1	292.0	
11/09/2021	17:31:15	ABP21307-TR01	Still	ABP21307-TR01-43	408		447 319.2	7 301 306.3	447 618.5	7 301 305.8	299.3	
11/09/2021	17:31:26	ABP21307-TR01	Still	ABP21307-TR01-44	409		447 319.2	7 301 306.3	447 617.9	7 301 306.5	298.7	
11/09/2021	17:32:08	ABP21307-TR01	Still	ABP21307-TR01-45	410		447 319.2	7 301 306.3	447 625.2	7 301 306.8	306.0	
11/09/2021	17:32:38	ABP21307-TR01	Still	ABP21307-TR01-46	411		447 319.2	7 301 306.3	447 632.1	7 301 307.3	312.9	
11/09/2021	17:33:20	ABP21307-TR01	Still	ABP21307-TR01-47	412		447 319.2	7 301 306.3	447 637.9	7 301 306.7	318.7	
11/09/2021	17:33:42	ABP21307-TR01	Still	ABP21307-TR01-48	413		447 319.2	7 301 306.3	447 642.2	7 301 306.1	323.0	
11/09/2021	17:34:16	ABP21307-TR01	Still	ABP21307-TR01-49	414		447 319.2	7 301 306.3	447 647.5	7 301 307.1	328.3	
11/09/2021	17:34:44	ABP21307-TR01	Still	ABP21307-TR01-50	415		447 319.2	7 301 306.3	447 651.9	7 301 308.3	332.7	
11/09/2021	17:35:04	ABP21307-TR01	Still	ABP21307-TR01-51	416		447 319.2	7 301 306.3	447 656.7	7 301 301.8	337.6	
11/09/2021	17:35:50	ABP21307-TR01	Still	ABP21307-TR01-52	417		447 319.2	7 301 306.3	447 681.7	7 301 306.2	362.5	
11/09/2021	17:36:43	ABP21307-TR01	Still	ABP21307-TR01-53	418		447 319.2	7 301 306.3	447 698.2	7 301 306.4	379.0	
11/09/2021	17:37:19	ABP21307-TR01	Still	ABP21307-TR01-54	419		447 319.2	7 301 306.3	447 705.7	7 301 308.1	386.5	
11/09/2021	17:38:37	ABP21307-TR01	Still	ABP21307-TR01-55	420		447 319.2	7 301 306.3	447 717.5	7 301 305.8	398.3	
11/09/2021	17:40:35	ABP21307-TR01	Still	ABP21307-TR01-56	421		447 319.2	7 301 306.3	447 745.2	7 301 307.1	426.0	
11/09/2021	17:41:06	ABP21307-TR01	Still	ABP21307-TR01-57	422		447 319.2	7 301 306.3	447 752.0	7 301 310.8	432.8	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	17:41:10	ABP21307-TR01	Still	ABP21307-TR01-58	423		447 319.2	7 301 306.3	447 751.8	7 301 309.4	432.6	
11/09/2021	17:41:14	ABP21307-TR01	Still	ABP21307-TR01-59	NF		447 319.2	7 301 306.3	447 753.4	7 301 310.6	434.2	
11/09/2021	17:43:32	ABP21307-TR01	Still	ABP21307-TR01-60	424		447 319.2	7 301 306.3	447 793.4	7 301 306.6	474.2	
11/09/2021	17:44:39	ABP21307-TR01	Still	ABP21307-TR01-61	425		447 319.2	7 301 306.3	447 811.6	7 301 304.7	492.4	
11/09/2021	17:44:58	ABP21307-TR01	Still	ABP21307-TR01-62	426		447 319.2	7 301 306.3	447 816.7	7 301 306.7	497.5	
11/09/2021	17:45:19	ABP21307-TR01	Video	EOL	427	349	447 319.2	7 301 306.3	447 819.7	7 301 307.1	500.5	
11/09/2021	18:43:10	ABP21307-TR07	Video	SOL	NF	346	447 518.7	7 300 814.3	447 523.2	7 300 820.5	7.7	
11/09/2021	18:44:35	ABP21307-TR07	Still	ABP21307-TR07-01	429		447 518.7	7 300 814.3	447 511.8	7 300 810.8	7.8	
11/09/2021	18:44:55	ABP21307-TR07	Still	ABP21307-TR07-02	430		447 518.7	7 300 814.3	447 505.0	7 300 812.7	13.8	
11/09/2021	18:45:44	ABP21307-TR07	Still	ABP21307-TR07-03	431		447 518.7	7 300 814.3	447 497.1	7 300 810.9	21.8	
11/09/2021	18:45:54	ABP21307-TR07	Still	ABP21307-TR07-04	NF		447 518.7	7 300 814.3	447 495.5	7 300 808.8	23.8	
11/09/2021	18:46:06	ABP21307-TR07	Still	ABP21307-TR07-05	432		447 518.7	7 300 814.3	447 491.6	7 300 807.8	27.9	
11/09/2021	18:46:37	ABP21307-TR07	Still	ABP21307-TR07-06	433		447 518.7	7 300 814.3	447 483.9	7 300 808.9	35.2	
11/09/2021	18:47:27	ABP21307-TR07	Still	ABP21307-TR07-07	NF		447 518.7	7 300 814.3	447 471.6	7 300 808.7	47.5	
11/09/2021	18:48:47	ABP21307-TR07	Still	ABP21307-TR07-08	434		447 518.7	7 300 814.3	447 456.6	7 300 802.3	63.3	
11/09/2021	18:52:08	ABP21307-TR07	Still	ABP21307-TR07-09	435		447 518.7	7 300 814.3	447 433.2	7 300 801.6	86.5	
11/09/2021	18:52:18	ABP21307-TR07	Still	ABP21307-TR07-10	436		447 518.7	7 300 814.3	447 432.6	7 300 802.3	87.0	
11/09/2021	18:52:47	ABP21307-TR07	Still	ABP21307-TR07-11	437		447 518.7	7 300 814.3	447 426.2	7 300 805.3	92.9	
11/09/2021	18:52:54	ABP21307-TR07	Still	ABP21307-TR07-12	438		447 518.7	7 300 814.3	447 425.3	7 300 805.1	93.9	
11/09/2021	18:54:00	ABP21307-TR07	Still	ABP21307-TR07-13	439		447 518.7	7 300 814.3	447 409.5	7 300 797.0	110.5	
11/09/2021	18:54:07	ABP21307-TR07	Still	ABP21307-TR07-14	440		447 518.7	7 300 814.3	447 408.1	7 300 797.0	112.0	
11/09/2021	18:54:44	ABP21307-TR07	Still	ABP21307-TR07-15	441		447 518.7	7 300 814.3	447 393.0	7 300 798.8	126.6	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	18:54:58	ABP21307-TR07	Still	ABP21307-TR07-16	442		447 518.7	7 300 814.3	447 388.7	7 300 802.3	130.6	
11/09/2021	18:55:30	ABP21307-TR07	Still	ABP21307-TR07-17	443		447 518.7	7 300 814.3	447 378.5	7 300 800.2	140.9	
11/09/2021	18:55:43	ABP21307-TR07	Still	ABP21307-TR07-18	444		447 518.7	7 300 814.3	447 377.0	7 300 797.5	142.7	
11/09/2021	18:58:30	ABP21307-TR07	Still	ABP21307-TR07-19	445		447 518.7	7 300 814.3	447 347.6	7 300 798.9	171.8	
11/09/2021	18:58:36	ABP21307-TR07	Still	ABP21307-TR07-20	446		447 518.7	7 300 814.3	447 348.0	7 300 798.5	171.4	
11/09/2021	18:58:49	ABP21307-TR07	Still	ABP21307-TR07-21	447		447 518.7	7 300 814.3	447 345.8	7 300 797.4	173.7	
11/09/2021	18:58:56	ABP21307-TR07	Still	ABP21307-TR07-22	448		447 518.7	7 300 814.3	447 344.9	7 300 796.3	174.7	
11/09/2021	18:59:14	ABP21307-TR07	Still	ABP21307-TR07-23	449		447 518.7	7 300 814.3	447 343.0	7 300 793.6	176.9	
11/09/2021	19:00:16	ABP21307-TR07	Still	ABP21307-TR07-24	450		447 518.7	7 300 814.3	447 329.8	7 300 786.3	191.0	
11/09/2021	19:00:28	ABP21307-TR07	Still	ABP21307-TR07-25	451		447 518.7	7 300 814.3	447 325.9	7 300 788.8	194.5	
11/09/2021	19:00:34	ABP21307-TR07	Still	ABP21307-TR07-26	452		447 518.7	7 300 814.3	447 323.7	7 300 790.1	196.5	
11/09/2021	19:00:45	ABP21307-TR07	Still	ABP21307-TR07-27	453		447 518.7	7 300 814.3	447 321.3	7 300 790.6	198.8	
11/09/2021	19:01:11	ABP21307-TR07	Still	ABP21307-TR07-28	454		447 518.7	7 300 814.3	447 311.3	7 300 792.8	208.5	
11/09/2021	19:01:39	ABP21307-TR07	Still	ABP21307-TR07-29	NF		447 518.7	7 300 814.3	447 305.0	7 300 789.6	215.2	
11/09/2021	19:02:06	ABP21307-TR07	Video	EOL	NF	347	447 518.7	7 300 814.3	447 302.4	7 300 788.4	217.9	
11/09/2021	19:25:57	ABP21307-TR09	Video	SOL	NF	347	447 239.0	7 300 947.0	447 237.4	7 300 945.2	2.4	
11/09/2021	19:26:09	ABP21307-TR09	Still	ABP21307-TR09-01	NF		447 239.0	7 300 947.0	447 237.1	7 300 945.0	2.8	
11/09/2021	19:27:09	ABP21307-TR09	Still	ABP21307-TR09-02	NF		447 239.0	7 300 947.0	447 242.3	7 300 941.9	6.1	
11/09/2021	19:28:01	ABP21307-TR09	Still	ABP21307-TR09-03	457		447 239.0	7 300 947.0	447 237.2	7 300 960.0	13.1	
11/09/2021	19:29:00	ABP21307-TR09	Still	ABP21307-TR09-04	458		447 239.0	7 300 947.0	447 234.3	7 300 968.7	22.1	
11/09/2021	19:31:52	ABP21307-TR09	Still	ABP21307-TR09-05	459		447 239.0	7 300 947.0	447 242.3	7 300 999.7	52.8	
11/09/2021	19:32:48	ABP21307-TR09	Still	ABP21307-TR09-06	460		447 239.0	7 300 947.0	447 236.1	7 301 008.8	61.9	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	19:33:05	ABP21307-TR09	Still	ABP21307-TR09-07	NF		447 239.0	7 300 947.0	447 232.9	7 301 010.9	64.2	
11/09/2021	19:33:17	ABP21307-TR09	Still	ABP21307-TR09-08	461		447 239.0	7 300 947.0	447 231.5	7 301 012.6	66.0	
11/09/2021	19:33:34	ABP21307-TR09	Still	ABP21307-TR09-09	462		447 239.0	7 300 947.0	447 231.7	7 301 016.7	70.1	
11/09/2021	19:33:51	ABP21307-TR09	Still	ABP21307-TR09-10	463		447 239.0	7 300 947.0	447 232.3	7 301 021.0	74.3	
11/09/2021	19:33:59	ABP21307-TR09	Still	ABP21307-TR09-11	464		447 239.0	7 300 947.0	447 232.4	7 301 023.7	76.9	
11/09/2021	19:34:11	ABP21307-TR09	Still	ABP21307-TR09-12	465		447 239.0	7 300 947.0	447 233.7	7 301 028.9	82.1	
11/09/2021	19:34:24	ABP21307-TR09	Still	ABP21307-TR09-13	466		447 239.0	7 300 947.0	447 235.0	7 301 033.4	86.5	
11/09/2021	19:34:48	ABP21307-TR09	Still	ABP21307-TR09-14	NF		447 239.0	7 300 947.0	447 237.9	7 301 040.9	93.9	
11/09/2021	19:35:04	ABP21307-TR09	Still	ABP21307-TR09-15	467		447 239.0	7 300 947.0	447 239.1	7 301 045.3	98.3	
11/09/2021	19:35:16	ABP21307-TR09	Still	ABP21307-TR09-16	468		447 239.0	7 300 947.0	447 236.7	7 301 050.7	103.7	
11/09/2021	19:35:27	ABP21307-TR09	Still	ABP21307-TR09-17	469		447 239.0	7 300 947.0	447 235.7	7 301 053.0	106.1	
11/09/2021	19:36:07	ABP21307-TR09	Still	ABP21307-TR09-18	470		447 239.0	7 300 947.0	447 238.7	7 301 062.1	115.1	
11/09/2021	19:36:58	ABP21307-TR09	Still	ABP21307-TR09-19	471		447 239.0	7 300 947.0	447 244.2	7 301 072.9	126.0	
11/09/2021	19:37:44	ABP21307-TR09	Still	ABP21307-TR09-20	472		447 239.0	7 300 947.0	447 242.0	7 301 085.2	138.2	
11/09/2021	19:37:55	ABP21307-TR09	Still	ABP21307-TR09-21	473		447 239.0	7 300 947.0	447 241.3	7 301 086.3	139.3	
11/09/2021	19:38:07	ABP21307-TR09	Still	ABP21307-TR09-22	474		447 239.0	7 300 947.0	447 241.6	7 301 088.1	141.1	
11/09/2021	19:38:19	ABP21307-TR09	Still	ABP21307-TR09-23	475		447 239.0	7 300 947.0	447 240.7	7 301 091.1	144.1	
11/09/2021	19:38:29	ABP21307-TR09	Still	ABP21307-TR09-24	476		447 239.0	7 300 947.0	447 240.4	7 301 093.5	146.5	
11/09/2021	19:38:40	ABP21307-TR09	Still	ABP21307-TR09-25	477		447 239.0	7 300 947.0	447 241.1	7 301 094.8	147.9	
11/09/2021	19:38:49	ABP21307-TR09	Still	ABP21307-TR09-26	478		447 239.0	7 300 947.0	447 241.5	7 301 097.8	150.9	
11/09/2021	19:39:50	ABP21307-TR09	Still	ABP21307-TR09-27	479		447 239.0	7 300 947.0	447 247.1	7 301 108.9	162.1	
11/09/2021	19:40:11	ABP21307-TR09	Still	ABP21307-TR09-28	480		447 239.0	7 300 947.0	447 246.2	7 301 109.7	162.9	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	19:40:11	ABP21307-TR09	Video	EOL	480	345	447 239.0	7 300 947.0	447 246.2	7 301 109.7	162.9	
11/09/2021	20:22:42	ABP21307-TR08	Video	SOL	NF	348	447 113.3	7 301 516.6	447 115.5	7 301 504.8	12.0	
11/09/2021	20:22:52	ABP21307-TR08	Still	ABP21307-TR08-01	482		447 113.3	7 301 516.6	447 115.0	7 301 505.6	11.2	
11/09/2021	20:23:45	ABP21307-TR08	Still	ABP21307-TR08-02	482		447 113.3	7 301 516.6	447 112.7	7 301 510.6	6.0	
11/09/2021	20:24:02	ABP21307-TR08	Still	ABP21307-TR08-03	483		447 113.3	7 301 516.6	447 114.5	7 301 515.9	1.4	
11/09/2021	20:24:37	ABP21307-TR08	Still	ABP21307-TR08-04	484		447 113.3	7 301 516.6	447 119.8	7 301 523.7	9.6	
11/09/2021	20:24:52	ABP21307-TR08	Still	ABP21307-TR08-05	NF		447 113.3	7 301 516.6	447 122.4	7 301 525.9	13.0	
11/09/2021	20:25:06	ABP21307-TR08	Still	ABP21307-TR08-06	485		447 113.3	7 301 516.6	447 128.1	7 301 527.3	18.2	
11/09/2021	20:25:12	ABP21307-TR08	Still	ABP21307-TR08-07	NF		447 113.3	7 301 516.6	447 130.2	7 301 527.7	20.2	
11/09/2021	20:25:25	ABP21307-TR08	Still	ABP21307-TR08-08	486		447 113.3	7 301 516.6	447 135.0	7 301 527.7	24.4	
11/09/2021	20:25:43	ABP21307-TR08	Still	ABP21307-TR08-09	487		447 113.3	7 301 516.6	447 141.9	7 301 526.2	30.2	
11/09/2021	20:25:57	ABP21307-TR08	Still	ABP21307-TR08-10	488		447 113.3	7 301 516.6	447 144.5	7 301 529.8	33.9	
11/09/2021	20:26:06	ABP21307-TR08	Still	ABP21307-TR08-11	489		447 113.3	7 301 516.6	447 144.7	7 301 533.8	35.8	
11/09/2021	20:26:21	ABP21307-TR08	Still	ABP21307-TR08-12	490		447 113.3	7 301 516.6	447 141.1	7 301 536.2	34.0	
11/09/2021	20:26:43	ABP21307-TR08	Still	ABP21307-TR08-13	491		447 113.3	7 301 516.6	447 140.2	7 301 540.4	35.9	
11/09/2021	20:26:52	ABP21307-TR08	Still	ABP21307-TR08-14	492		447 113.3	7 301 516.6	447 142.6	7 301 543.0	39.5	
11/09/2021	20:27:11	ABP21307-TR08	Still	ABP21307-TR08-15	NF		447 113.3	7 301 516.6	447 145.3	7 301 546.4	43.7	
11/09/2021	20:27:30	ABP21307-TR08	Still	ABP21307-TR08-16	493		447 113.3	7 301 516.6	447 152.1	7 301 548.8	50.4	
11/09/2021	20:27:41	ABP21307-TR08	Still	ABP21307-TR08-17	494		447 113.3	7 301 516.6	447 155.6	7 301 548.7	53.1	
11/09/2021	20:27:47	ABP21307-TR08	Still	ABP21307-TR08-18	495		447 113.3	7 301 516.6	447 157.9	7 301 549.7	55.6	
11/09/2021	20:28:35	ABP21307-TR08	Still	ABP21307-TR08-19	496		447 113.3	7 301 516.6	447 171.1	7 301 557.9	71.1	
11/09/2021	20:29:23	ABP21307-TR08	Still	ABP21307-TR08-20	497		447 113.3	7 301 516.6	447 174.8	7 301 568.7	80.6	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]												
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	20:29:36	ABP21307-TR08	Still	ABP21307-TR08-21	498		447 113.3	7 301 516.6	447 176.8	7 301 568.6	82.1	
11/09/2021	20:29:45	ABP21307-TR08	Still	ABP21307-TR08-22	499		447 113.3	7 301 516.6	447 175.8	7 301 570.2	82.3	
11/09/2021	20:29:57	ABP21307-TR08	Still	ABP21307-TR08-23	500		447 113.3	7 301 516.6	447 180.4	7 301 568.6	84.9	
11/09/2021	20:30:07	ABP21307-TR08	Still	ABP21307-TR08-24	501		447 113.3	7 301 516.6	447 183.3	7 301 567.7	86.7	
11/09/2021	20:30:18	ABP21307-TR08	Still	ABP21307-TR08-25	NF		447 113.3	7 301 516.6	447 186.2	7 301 567.7	89.0	
11/09/2021	20:30:28	ABP21307-TR08	Still	ABP21307-TR08-26	502		447 113.3	7 301 516.6	447 190.6	7 301 566.8	92.2	
11/09/2021	20:30:40	ABP21307-TR08	Still	ABP21307-TR08-27	503		447 113.3	7 301 516.6	447 193.6	7 301 569.8	96.3	
11/09/2021	20:30:59	ABP21307-TR08	Still	ABP21307-TR08-28	504		447 113.3	7 301 516.6	447 198.8	7 301 573.8	102.8	
11/09/2021	20:31:29	ABP21307-TR08	Still	ABP21307-TR08-29	505		447 113.3	7 301 516.6	447 203.4	7 301 583.9	112.5	
11/09/2021	20:31:56	ABP21307-TR08	Still	ABP21307-TR08-30	506		447 113.3	7 301 516.6	447 208.5	7 301 589.7	120.0	
11/09/2021	20:32:29	ABP21307-TR08	Still	ABP21307-TR08-31	507		447 113.3	7 301 516.6	447 221.9	7 301 591.3	131.8	
11/09/2021	20:32:42	ABP21307-TR08	Still	ABP21307-TR08-32	508		447 113.3	7 301 516.6	447 224.3	7 301 595.4	136.1	
11/09/2021	20:33:32	ABP21307-TR08	Still	ABP21307-TR08-33	509		447 113.3	7 301 516.6	447 226.8	7 301 610.2	147.1	
11/09/2021	20:34:11	ABP21307-TR08	Still	ABP21307-TR08-34	510		447 113.3	7 301 516.6	447 240.7	7 301 614.7	160.8	
11/09/2021	20:34:49	ABP21307-TR08	Still	ABP21307-TR08-35	511		447 113.3	7 301 516.6	447 251.9	7 301 616.5	170.8	
11/09/2021	20:36:13	ABP21307-TR08	Still	ABP21307-TR08-36	512		447 113.3	7 301 516.6	447 262.5	7 301 639.4	193.3	
11/09/2021	20:36:36	ABP21307-TR08	Still	ABP21307-TR08-37	513		447 113.3	7 301 516.6	447 267.4	7 301 641.6	198.4	
11/09/2021	20:36:48	ABP21307-TR08	Still	ABP21307-TR08-38	514		447 113.3	7 301 516.6	447 269.6	7 301 642.8	200.9	
11/09/2021	20:37:11	ABP21307-TR08	Still	ABP21307-TR08-39	515		447 113.3	7 301 516.6	447 275.7	7 301 644.2	206.5	
11/09/2021	20:37:26	ABP21307-TR08	Still	ABP21307-TR08-40	516		447 113.3	7 301 516.6	447 280.4	7 301 641.9	208.9	
11/09/2021	20:37:33	ABP21307-TR08	Still	ABP21307-TR08-41	517		447 113.3	7 301 516.6	447 282.4	7 301 640.7	209.7	
11/09/2021	20:38:08	ABP21307-TR08	Still	ABP21307-TR08-42	518		447 113.3	7 301 516.6	447 294.0	7 301 643.2	220.6	

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/09/2021	20:39:04	ABP21307-TR08	Still	ABP21307-TR08-43	NF		447 113.3	7 301 516.6	447 292.2	7 301 662.8	231.0	
11/09/2021	20:39:24	ABP21307-TR08	Still	ABP21307-TR08-44	519		447 113.3	7 301 516.6	447 292.5	7 301 665.7	233.1	
11/09/2021	20:39:24	ABP21307-TR08	Video	EOL	519	348	447 113.3	7 301 516.6	447 292.5	7 301 665.7	233.1	

Notes
UTM = Universal Transverse Mercator
BSL = Below sea level
SOL = Start of line
EOL = End of line
NF = No fix

B.2 Video and Photographic Log

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
ABP21307-TR01	17:06:41	447 313.1	7 301 300.8	18	ABP21307-TR01-01 – ABP21307-TR01-04	Sandy mud/muddy sand with pebbles and cobbles and a coral mound	Cold water coral (*Desmophyllum pertusum*), sponges (Porifera) including branching; Axinellidae, *Mycale lingua* and encrusting forms; *Hymedesmia paupertas* and *Aplysilla sulfurea*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis*), anemones (Actiniaria including *Actinostola callosa*). Fish (Pisces), saithe (*Pollachius virens*). Faunal turf (Hydrozoa/Bryozoa). Dead *Desmophyllum pertusum* framework
	17:08:30	447 330.9	7 301 301.7				
	17:08:30	447 330.9	7 301 301.7	9	-	Sandy mud/muddy sand with pebbles	Sponges (Porifera) including branching; Axinellidae and encrusting forms). Saithe (*Pollachius virens*), redfish (Sebastidae)
	17:08:53	447 338.4	7 301 306.9				
	17:08:53	447 338.4	7 301 306.9	15	ABP21307-TR01-05 – ABP21307-TR01-09	Sandy mud/muddy sand with pebbles and cobbles	Soft coral (*Paragorgia arborea* and *Primnoa resedaeformis*), sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., stalked sponge (*Stylocordyla borealis),* and encrusting forms; *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actiniaria including ?*Actinostola callosa*), squat lobsters (*Munida* sp.), featherworm (Sabellidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	17:09:58	447 353.8	7 301 305.2				
	17:09:58	447 353.8	7 301 305.2	36	ABP21307-TR01-10 – ABP21307-TR01-13	Sandy mud/muddy sand with occasional cobbles and boulder	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals *(Primnoa resedaeformis*), faunal turf (Hydrozoa/Bryozoa), squat lobsters (*Munida* sp.). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	17:13:10	447 389.4	7 301 309.3				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	17:13:10	447 389.4	7 301 309.3	13	ABP21307-TR01-14 – ABP21307-TR01-16	Sandy mud/muddy sand with occasional pebbles, cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma* encrusting forms *Hymedesmia paupertas* and *Aplysilla sulfurea*), squat lobsters (*Munida* sp.), anemones (Actiniaria including *Actinostola callosa*). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal turf (Hydrozoa/Bryozoa) and burrows
	17:14:11	447 399.1	7 301 300.6				
	17:14:11	447 399.1	7 301 300.6	22	ABP21307-TR01-17 – ABP21307-TR01- 23	Sandy mud/muddy sand with pebbles, cobbles, boulders and coral rubble	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., mud covered forms, encrusting forms *Hymedesmia paupertas* and *Aplysilla sulfurea,* glass sponge (*Asconema* sp.), gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), anemone (Actiniaria including *Actinostola callosa),* squat lobster *(Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*). Faunal burrows
	17:15:38	447 420.1	7 301 307.0				
	17:15:38	447 420.1	7 301 307.0	54	ABP21307-TR01-24	Sandy mud/muddy sand with occasional pebbles and cobbles	Sponges (Porifera) including erect and branching forms polymastiidae, *Mycale lingua*, Axinellidae; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus)*, faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*). Faunal burrows
	17:19:43	447 473.8	7 301 309.9				
	17:19:43	447 473.8	7 301 309.9	54	ABP21307-TR01-25	Sandy mud/muddy sand with pebbles, cobbles and a patch of coral rubble	Sponges (Porifera) including erect and branching forms: Polymastiidae, *Mycale lingua*, Axinellidae, *Phakellia* sp., encrusting forms (*Hymedesmia paupertas*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces including saithe (*Pollachius virens*), redfish (Sebastidae)
	17:23:36	447 527.3	7 301 305.2				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	17:23:36	447 527.3	7 301 305.2	24	ABP21307-TR01-26 – ABP21307-TR01- 35	Coral mound	Soft coral (*Paragorgia arborea* and *Primnoa resedaeformis*), sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., and encrusting forms; *Hymedesmia paupertas and Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), file shell (*Acesta excavata*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Dead coral framework
	17:25:05	447 549.9	7 301 311.6				
	17:25:05	447 549.9	7 301 311.6	60	ABP21307-TR01-36 – ABP21307-TR01- 41	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) including erect and branching forms polymastiidae, *Mycale lingua*, Axinellidae, *Phakellia* sp. encrusting forms (*Hymedesmia paupertas*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (?Asconema sp.), soft coral (*Paragorgia arborea)* , squat lobster (*Munida* sp.), anemone (Actiniaria including *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae)
	17:30:38	447 609.7	7 301 308.2				
	17:30:38	447 609.7	7 301 308.2	32	ABP21307-TR01-42 – ABP21307-TR01-47	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponges (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), squat lobster (*Munida* sp.), shrimp (Caridea), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), Faunal burrows and tracks
	17:33:43	447 642.2	7 301 306.1				
	17:33:43	447 642.2	7 301 306.1	56	ABP21307-TR01-48 – ABP21307-TR01- 53	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) including erect and branching forms polymastiidae, *Mycale lingua*, Axinellidae, *Phakellia* sp.; encrusting forms (*Hymedesmia paupertas*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), stalked sponges (*Stylocordyla borealis*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae)
	17:36:40	447 697.8	7 301 306.7				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	17:36:40	447 697.8	7 301 306.7	122	ABP21307-TR01-54 – ABP21307-TR01- 62	Sandy mud/muddy sand with patch of pebbles and cobbles	Sponges (Porifera) including erect and branching forms polymastiidae, *Mycale lingua*, Axinellidae, *Phakellia* sp.; stalked sponges (*Stylocordyla borealis*); encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), cushion star (Valvatida including ?*Hippasteria phrygiana*), sea cucumber (*Parastichopus tremulus*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and tracks
	17:45:19	447 819.7	7 301 307.1				
ABP21307-TR02a	15:23:51	447 567.8	7 301 052.3	188	ABP21307-TR02-01 – ABP21307-TR02-05	Sandy mud/muddy sand with patch of pebbles and cobbles	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), soft coral (*Paragorgia arborea*), shrimp (Caridae), sea cucumber (*Parastichopus tremulus*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	15:53:40	447 557.3	7 301 240.4				
	15:53:40	447 557.3	7 301 240.4	3	ABP21307-TR02-06	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) encrusting forms *Hymedesmia paupertas;* mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	15:53:46	447 559.6	7 301 242.1				
	15:53:46	447 559.6	7 301 242.1	74	ABP21307-TR02-07 – ABP21307-TR02-10	Sandy mud/muddy sand with occasional cobbles and pebbles	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); Polymastiidae; encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). squat lobster (*Munida sp.*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	15:58:43	447 555.9	7 301 315.9				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	15:58:43	447 555.9	7 301 315.9	78	ABP21307-TR02-11 – ABP21307-TR02-17	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*; glass sponge (*Asconema sp.*), soft coral (*Paragorgia arborea*), squat lobster (*Munida sp.*), anemone (Actiniaria: *Actinostola callosa*), starfish (Asteroidea), sea cucumber *(Parastichopus tremulus*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*), redfish (Sebastidae), tusk *(Brosme brosme*). Faunal burrows and mounds
	16:05:17	447 580.3	7 301 389.9				
	16:05:17	447 580.3	7 301 389.9	14	-	Sandy mud/muddy sand	Sponges (Porifera including Polymastiidae), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:06:01	447 570.4	7 301 399.8				
	16:06:01	447 570.4	7 301 399.8	41	ABP21307-TR02-18	Sandy mud/muddy sand with cobbles and boulders with burrowed Sandy mud/muddy sand patches	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); Polymastiidae; encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida sp.*), anemone (Actiniaria: *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*). Faunal burrows and mounds
	16:11:12	447 560.2	7 301 440.1				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	16:11:12	447 560.2	7 301 440.1	78	ABP21307-TR02-19 – ABP21307-TR02- 22	Sandy mud/muddy sand with patches of pebbles and cobbles	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp*., stalked sponge (*Stylocordyla borealis*); encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), anemone (Actiniaria: *Actinostola callosa*), cushion star (Valvatida including ?*Hippasteria phrygiana*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:15:20	447 558.9	7 301 518.1				
	16:15:20	447 558.9	7 301 518.1	14	ABP21307-TR02-23	Sandy mud/muddy sand with cobbles and boulders with burrowed Sandy mud/muddy sand patches	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., stalked sponge (*Stylocordyla borealis*); encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (*Asconema* sp.), squat lobster (*Munida* sp.), anemone (Actiniaria), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces) including saithe (*Pollachius virens*). Faunal burrows and mounds
	16:16:28	447 550.7	7 301 529.5				
ABP21307-TR03	16:30:08	447 570.1	7 301 559.5	42	ABP21307-TR03-01 – ABP21307-TR03-07	Sandy mud/muddy sand with occasional cobbles and pebbles	Sponges (Porifera) including erect and branching forms Axinellidae, *Mycale sp*., *Phakellia sp*., ?*Antho dichotoma*; encrusting forms *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), stalked sponge (*Stylocordyla borealis*), squat lobster (*Munida sp.*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:37:20	447 541.0	7 301 528.9				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	16:37:20	447 541.0	7 301 528.9	86	ABP21307-TR03-08 – ABP21307-TR03-11	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*); Polymastiidae; erect and branching forms *Mycale lingua*, ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida sp.*), burrowing anemone (Ceriantharia), cushion star (Valvatida) including ?*Hippasteria phrygiana*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:43:21	447 479.4	7 301 468.5				
	16:43:21	447 479.4	7 301 468.5	13	ABP21307-TR03-12	Sandy mud/muddy sand with pebbles and cobbles with patch of burrowed Sandy mud/muddy sand	Sponges (Porifera) including erect and branching forms Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*; encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (*Asconema sp.*), squat lobster (*Munida sp.*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:44:13	447 470.0	7 301 459.9				
	16:44:13	447 470.0	7 301 459.9	54	ABP21307-TR03-13	Sandy mud/muddy sand with occasional patches of pebbles and cobbles	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis)*, erect and branching forms *Mycale lingua*, *Phakellia sp*, ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), soft coral (*Paragorgia arborea*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:47:26	447 433.8	7 301 419.6				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	16:47:26	447 433.8	7 301 419.6	62	ABP21307-TR03-14 – ABP21307-TR03-24	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms Axinellidae, Polymastiidae, *Mycale lingua*, *Phakellia* sp., ?A*ntho dichotoma*; encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfure*a), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (*Asconema* sp.), stalked sponge (*Stylocordyla borealis*), soft coral (*Paragorgia arborea*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe *(Pollachius virens*), redfish (Sebastidae), black mouthed dogfish (?*Galeus melastomus)*. Faunal burrows and mounds. Dead coral framework
	16:52:17	447 385.4	7 301 380.4				
	16:52:17	447 385.4	7 301 380.4	59	ABP21307-TR03-25	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera) including erect and branching forms Axinellidae, *Mycale lingua*, *Phakellia* sp.; stalked sponge *(Stylocordyla borealis*); encrusting forms, mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds
	16:55:33	447 342.9	7 301 339.0				
	16:55:33	447 342.9	7 301 339.0	42	ABP21307-TR03-26 – ABP21307-TR03-37	Sandy mud/muddy sand with pebbles, cobbles and coral mound	Sponges (Porifera) including encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*, erect and branching forms *Mycale lingua*, *Phakellia* sp., Axinellidae, ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), soft coral (*Paragorgia arborea*), cold-water corals (*Desmophyllum pertusum*), file shell (*Acesta excavata*), squat lobster (*Munida* sp.), anemone (Actiniaria including *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows and mounds. Dead coral framework
	16:59:12	447 318.6	7 301 304.4				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
ABP21307-TR04	17:03:22	447 802.9	7 299 119.6	284	ABP21307-TR04-01 – ABP21307-TR04-21	Sandy mud/muddy sand with occasional cobbles, pebbles and boulder	Sponges (Porifera) including erect and branching forms ?*Antho dichotoma, Mycale lingua*, *Phakellia* sp., Axinellidae; encrusting forms including *Hymedesmia paupertas,* stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), shrimp (Caridea), anemone (Actiniaria: *Actinostola callosa*), cushion star (Valvatida including ?*Hippasteria phrygiana*), sea cucumber (*Parastichopus tremulus*), sea pen (*Virgularia mirabilis*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	17:53:20	448 087.2	7 299 121.0				
	17:53:20	448 087.2	7 299 121.0	12	ABP21307-TR04-22 – ABP21307-TR04-23	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) including erect and branching forms *Mycale lingua*, ?*Antho dichotoma, Phakellia sp., Axinellidae*; encrusting forms, stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), tube-building worms (Sabellidae), cushion star (Valvatida including ?*Hippasteria phrygiana*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), Faunal turf burrows, mounds and tracks
	17:54:31	448 095.7	7 299 112.5				
	17:54:31	448 095.7	7 299 112.5	67	ABP21307-TR04-24 – ABP21307-TR04-25	Sandy mud/muddy sand	Sponges (Porifera) including mud covered forms; stalked sponge (*Stylocordyla borealis*); erect and branching forms *Mycale lingua*), cushion star (Valvatida including ?*Hippasteria phrygiana*), sea cucumber (*Parastichopus tremulus*), tube-building worm (Sabellidae), sea urchin (Echinidae), starfish (*Henricia* sp), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), flatfish (Pleuronectiformes). Faunal burrows, mounds and tracks
	17:59:07	448 162.7	7 299 113.5				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	17:59:07	448 162.7	7 299 113.5	37	ABP21307-TR04-26	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms *Mycale lingua*, ?*Antho dichotoma, Phakellia* sp., Axinellidae; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	18:02:00	448 199.4	7 299 120.0				
	18:02:00	448 199.4	7 299 120.0	83	ABP21307-TR04-27 – ABP21307-TR04-32	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera including; stalked sponge (*Stylocordyla borealis*), erect and branching forms; Axinellidae, *Mycale* sp., *Phakellia* sp., ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), cushion star (Valvatida including ?*Hippasteria phrygiana*). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae)
	18:08:31	448 282.0	7 299 131.4				
ABP21307-TR05	15:13:42	448 125.2	7 298 860.5	7	ABP21307-TR05-01 – ABP21307-TR05-02	Sandy mud/muddy sand	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp, ?*Antho dichotoma*, encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*; stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	15:15:16	448 124.2	7 298 862.7				
	15:15:16	448 124.2	7 298 862.7	95	ABP21307-TR05-03 – ABP21307-TR05-10	Sandy mud/muddy sand with occasional cobbles and pebbles	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*, stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), tube-building worm (Sabellidae), squat lobster (Munida sp.), sea cucumber (*Parastichopus tremulus*), shrimp (Caridae), krill (Euphausiacea), cushion star (Valvatida including ?*Hippasteria phrygiana*), fauanl turf (Hydrozoa/Bryozoa), sea pen (*Kophobelemnon stelliferum*). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	15:27:14	448 082.4	7 298 948.3				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	15:27:14	448 082.4	7 298 948.3	24	ABP21307-TR05-11	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*, mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), stalked sponge (*Stylocordyla borealis*). sea cucumber (*Parastichopus tremulus*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*). Faunal burrows and mounds
	15:29:00	448 061.9	7 298 961.4				
	15:29:00	448 061.9	7 298 961.4	191	ABP21307-TR05-12 – ABP21307-TR05-25	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*), encusting forms: including *Hymedesmia paupertas* and *Aplysilla sulfurea*, erect forms: *Phakellia sp.*, *Mycale lingua*, branched forms: ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), sea pen (*Kophobelemnon stelliferum*), sea cucumber (*Parastichopus tremulus*), shrimp (Caridea), cushion star (Valvatida including ?*Hippasteria phrygiana*), squat lobster (*Munida sp.*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*). Faunal burrows and tracks
	15:43:38	448 009.4	7 299 145.3				
	15:43:38	448 009.4	7 299 145.3	31	ABP21307-TR05-26 – ABP21307-TR05-29	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*), encusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*, erect forms: *Phakellia sp.*, *Mycale lingua*, Axinellidae, branched forms: ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida sp.*), shrimp (Caridea), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, tracks, and mounds
	15:45:45	447 987.6	7 299 166.6				
	15:45:45	447 987.6	7 299 166.6	32	ABP21307-TR05-30	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*), glass sponge (*Asconema* sp.), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). Saithe (*Pollachius virens*)
	15:48:08	447 991.7	7 299 198.2				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	15:48:08	447 991.7	7 299 198.2	14	ABP21307-TR05-31	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*), erect and branching forms (Axinellidae, *Mycale lingua*, *Phakellia* sp., encrusting forms: including *Hymedesmia paupertas* and *Aplysilla sulfurea),* mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). Saithe (*Pollachius virens*)
	15:49:08	447 984.5	7 299 210.0				
	15:49:08	447 984.5	7 299 210.0	120	ABP21307-TR05-32 – ABP21307-TR05-38	Sandy mud/muddy sand with patches of cobbles and boulder	Sponge (Porifera) including stalked sponge (*Stylocordyla borealis*); erect and branching forms; *Mycale lingua*, Axinellidae, *Phakellia sp.*; encrusting forms; branched forms: ?*Antho dichotoma*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), faunal turf (Hydrozoa/Bryozoa), squat lobster (*Munida* sp.), krill (Euphausiacea). Saithe (*Pollachius virens*). Faunal burrows and mounds
	15:59:26	447 940.7	7 299 321.3				
	15:59:26	447 940.7	7 299 321.3	123	ABP21307-TR05-39 – ABP21307-TR05-48	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma,* encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*, stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), tube-building worm (Sabellidae), squat lobster (*Munida sp.*), krill (Euphausiacea), cushion star (Valvatida including ?*Hippasteria phrygiana*), faunal turf (Hydrozoa/Bryozoa). Saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	16:09:30	447 899.7	7 299 436.8				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
ABP21307-TR06	16:14:50	447 895.7	7 299 434.3	25	ABP21307-TR06-01 – ABP21307-TR06-04	Sandy mud/muddy sand with occasional cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*, encrusting forms; stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (*Asconema* sp.), squat lobster (*Munida* sp.), sea urchin (Echinidae), krill (Euphausiacea), faunal turf (Hydrozoa/Bryozoa). Faunal burrows and mounds
	16:18:55	447 889.2	7 299 410.4				
	16:18:55	447 889.2	7 299 410.4	14	ABP21307-TR06-05 – ABP21307-TR06-07	Coral mound/rubble	Gorgonian coral (*Paragorgia arborea*), cold-water coral *(Desmophyllum pertusum*), sponges (Porifera) including erect and branching forms *Mycale lingua*), sea anemone (Actiniaria). Saithe (*Pollachius virens*). Dead coral framework
	16:20:14	447 885.3	7 299 397.1				
	16:20:14	447 885.3	7 299 397.1	15	ABP21307-TR06-08 – ABP21307-TR06-09	Sandy mud/muddy sand with cobbles, pebbles and occasional boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp.; encrusting forms *Hymedesmia paupertas*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), squat lobster (*Munida* sp.), spoon worm (*Bonellia viridis*), sea pen (?*Ptilella grandis*). Saithe (*Pollachius virens*)
	16:22:53	447 872.8	7 299 388.9				
	16:22:53	447 872.8	7 299 388.9	190	ABP21307-TR06-10 – ABP21307-TR06-39	Coral mounds and rubble with patch of cobbles and pebbles	Gorgonian coral (*Paragorgia arborea* and *Primnoa resedaeformis*), sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), anemone (Actiniaria) including *Actinostola callosa*), file clam (*Acesta excavata*). Saithe (*Pollachius virens*), redfish (Sebastidae), tusk (*Brosme brosme*). Dead coral framework
	16:47:40	447 829.7	7 299 204.1				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	16:47:40	447 829.7	7 299 204.1	62	ABP21307-TR06-40 – ABP21307-TR06-48	Sandy mud/muddy sand with cobbles, pebbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp.; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), anemone (Actiniaria including *Actinostola callosa*). Fish (Pisces), saithe (*Pollachius virens*)
	16:53:00	447 814.4	7 299 144.1				
	16:53:00	447 814.4	7 299 144.1	37	ABP21307-TR06-49 – ABP21307-TR06-52	Sandy mud/muddy sand with occasional cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea: ?*Henricia* sp), cushion star (Valvatida including ?*Hippasteria phrygiana*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae), flatfish (Pleuronectiformes). Faunal burrows, mounds and tracks
	16:56:43	447 805.4	7 299 108.4				
ABP21307-TR07	18:43:10	447 523.2	7 300 820.5	19	ABP21307-TR07-01	Sandy mud/muddy sand	Sponges (Porifera) including erect forms; Axinellidae, Polymastiidae; encrusting forms; stalked sponge (*Stylocordyla borealis),* mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	18:44:51	447 506.2	7 300 812.9				
	18:44:51	447 506.2	7 300 812.9	66	ABP21307-TR07-02 – ABP21307-TR07-08	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma,* stalked sponge *(Stylocordyla borealis)*; encrusting forms), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.). Fish (Pisces), saithe (*Pollachius virens*)
	18:51:15	447 440.7	7 300 805.4				
	18:51:15	447 440.7	7 300 805.4	7	-	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*); mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp), faunal turf (Hydozoa/Bryozoa)
	18:52:02	447 434.5	7 300 801.6				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	18:52:02	447 434.5	7 300 801.6	68	ABP21307-TR07-09 – ABP21307-TR07-18	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); encrusting forms *Hymedesmia paupertas;* glass sponge *(Asconema* sp.), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), squat lobster (Munida sp.), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae)
	18:56:43	447 366.9	7 300 795.4				
	18:56:43	447 366.9	7 300 795.4	18	-	Sandy mud/muddy sand	Sponges (Porifera) stalked sponge (*Stylocordyla borealis*); mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae). Fish (Pisces), saithe (*Pollachius virens*)
	18:58:26	447 348.9	7 300 798.3				
	18:58:26	447 348.9	7 300 798.3	11	ABP21307-TR07-19 – ABP21307-TR07-23	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale* sp, *Phakellia* sp, ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); encrusting forms *Hymedesmia paupertas;* glass sponge (*Asconema* sp.), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), squat lobster (*Munida* sp.), anemone (Actiniaria including *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa), bryozoan (*Reteporella* sp.), Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	18:59:32	447 341.0	7 300 791.3				
	18:59:32	447 341.0	7 300 791.3	11	-	Sandy mud/muddy sand	Sponges (Porifera) including stalked sponge (*Stylocordyla borealis*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	19:00:16	447 329.8	7 300 789.3				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	19:00:16	447 329.8	7 300 789.3	27	ABP21307-TR07-24 – ABP21307-TR07-29	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., stalked sponge (*Stylocordyla borealis*); encrusting forms *Hymedesmia paupertas*; glass sponge (*Asconema* sp.), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), gorgonian coral (*Paragorgia arborea*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	19:02:06	447 302.4	7 300 788.4				
ABP21307-TR08	20:22:42	447 115.5	7 301 504.8	9	ABP21307-TR08-01 – ABP21307-TR08-02	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*; encrusting forms *Hymedesmia paupertas*), gorgonian coral (*Paragorgia arborea*), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	20:23:54	447 112.0	7 301 512.8				
	20:23:54	447 112.0	7 301 512.8	27	ABP21307-TR08-03 – ABP21307-TR08-07	Coral mound	Sponges (Porifera) including encrusting forms; erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*), gorgonian coral (*Paragorgia arborea*), anemone (Actiniaria), brittlestars (Ophiuroidea), burrowing anemone (Ceriantharia), squat lobster (*Munida* sp.), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	20:25:20	447 133.6	7 301 528.7				
	20:25:20	447 133.6	7 301 528.7	59	ABP21307-TR08-08 – ABP21307-TR08-22	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including encrusting forms; erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?Antho dichotoma;), gorgonian coral (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobster (*Munida* sp.), tube-building rworm (Sabellidae), starfish (Asteroidea), faunal turf (Hydrozo/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	20:29:46	447 175.8	7 301 570.2				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	20:29:46	447 175.8	7 301 570.2	49	ABP21307-TR08-23 – ABP21307-TR08-30	Coral mound	Sponges (Porifera) including encrusting forms; erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*;), gorgonian coral *(Paragorgia arborea),* anemone (Actiniaria including *Actinostola callosa*), glass sponge (*Asconema* sp.), starfish (Asteroidea), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	20:32:22	447 220.8	7 301 588.8				
	20:32:22	447 220.8	7 301 588.8	105	ABP21307-TR08-31 – ABP21307-TR08-44	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma*; encrusting forms *Hymedesmia paupertas*), gorgonian coral (*Paragorgia arborea*), sea urchin (*Echinus esculentus*), starfish (Asteroidea), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	20:39:24	447 292.5	7 301 665.7				
ABP21307-TR09	19:25:57	447 237.4	7 300 945.2	64	ABP21307-TR09-01 – ABP21307-TR09-05	Sandy mud/muddy sand with occasional cobbles and boulders	Sponges (Porifera) including erect and branching forms; Axinellidae, *Mycale lingua*, *Phakellia sp.*, ?*Antho dichotoma*, stalked sponge (*Stylocordyla borealis*); encrusting forms *Hymedesmia paupertas;* glass sponge (*Asconema sp.*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (*Munida* sp.), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea: ?*Henricia* sp.), sea pen (*Funiculina quadrangularis, Halipteris finmarchia*), ftube-building worm (Sabellidae), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	19:32:47	447 237.2	7 301 008.8				

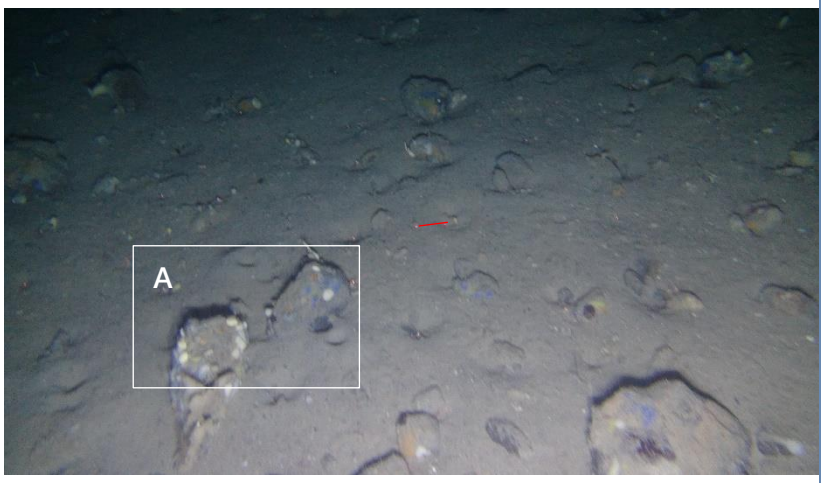
Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62° N [m]							
Transect	Time [UTC]	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
		Easting	Northing				
	19:32:47	447 237.2	7 301 008.8	12	ABP21307-TR09-06 – ABP21307-TR09-09	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera) including erect and branching forms Axinellidae, *Mycale lingua*, *Phakellia* sp., ?*Antho dichotoma,* Polymastiidae*;* encrusting forms *Hymedesmia paupertas*), gorgonian coral (*Paragorgia arborea*), squat lobster (*Munida* sp.), anemone (Actiniaria including *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*). Faunal burrows, mounds and tracks
	19:33:43	447 232.3	7 301 019.2				
	19:33:43	447 232.3	7 301 019.2	49	ABP21307-TR09-10 – ABP21307-TR09-18	Coral mound	Sponges (Porifera) including erect and branching forms Axinellidae, *Mycale lingua*, *Phakellia* sp., Polymastiidae; encrusting forms), gorgonian coral (*Paragorgia arborea*), anemone (Actiniaria including *Actinostola callosa*), squat lobster (*Munida* sp.), sea urchin (Echinidae), starfish (Asteroidea), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	19:36:26	447 241.7	7 301 067.4				
	19:36:26	447 241.7	7 301 067.4	43	ABP21307-TR09-19 – ABP21307-TR09-28	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: including erect and branching forms Axinellidae, *Phakellia* sp., *Mycale lingua*, Polymastiidae, ?*Antho dichotoma*; encrusting forms; stalked sponge (*Stylocordyla borealis*), mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), tube-building polychaetes (*Filograna/Salmacina*), gorgonian coral (*Paragorgia arborea* and *Primnoa resedaeformis*), tube-building worm (Sabellidae), squat lobster (*Munida* sp.), anemone (Actiniaria including *Actinostola callosa*), faunal turf (Hydrozoa/Bryozoa). Fish (Pisces), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows, mounds and tracks
	19:40:11	447 246.2	7 301 109.7				

Notes
* = Distance is calculated from start of section to end of section
UTC = Coordinated Universal Time
? = Identification is uncertain

Appendix C

Seabed Photographs

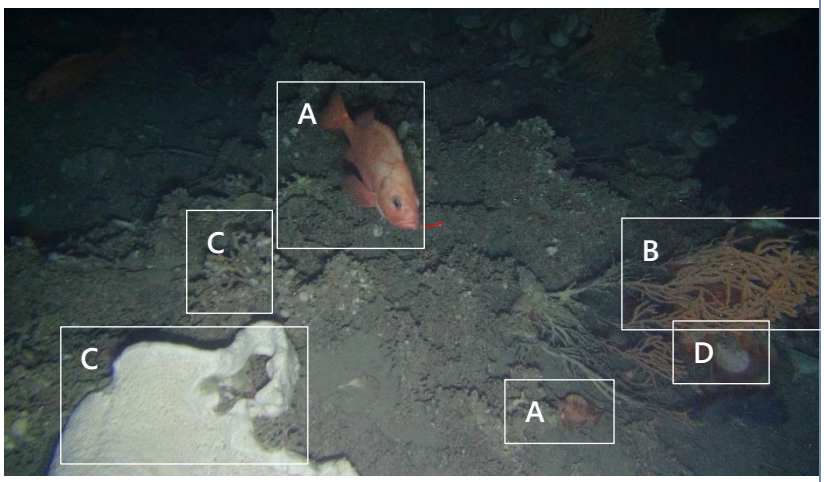
ABP21307-TR01



Photograph:
ABP21307-TR01-08

Sediment Type:
Sandy mud/muddy sand with pebbles and cobbles

Fauna:
A: Sponges (Porifera)



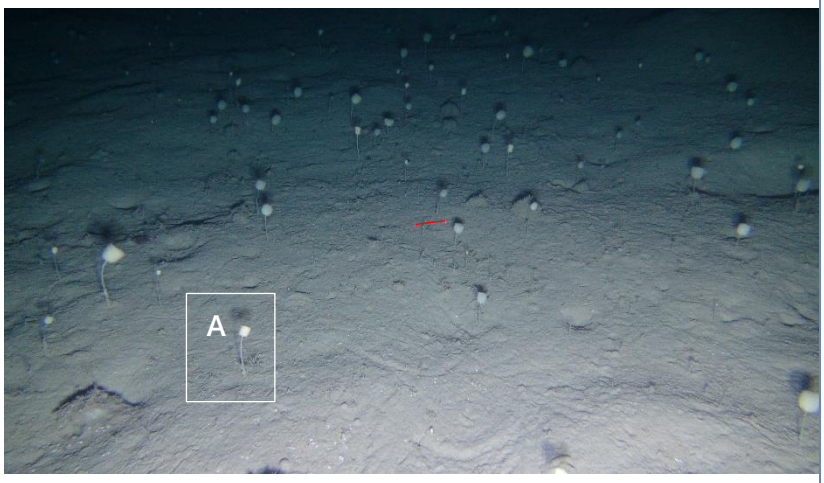
Photograph:
ABP21307-TR01-33

Sediment Type:
Coral framework

Fauna:
A: Redfish (Sebastidae)
B: Gorgonian corals (*Primnoa resedaeformis*)
C: Sponges (Porifera)
D: File shells (*Acesta excavata*)

Notes: Laser distance (red) is 6.5 cm

ABP21307-TR02



Photograph:
ABP21307-TR02-13

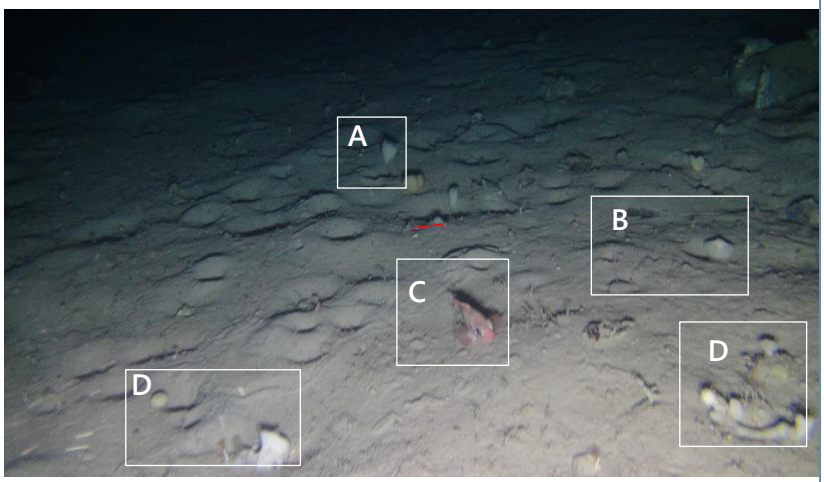
Sediment Type:

Muddy sand/sandy mud

Fauna:

A: Stalked sponges (*Stylocordyla borealis*)

Faunal tracks and burrows



Photograph:
ABP21307-TR02-11

Sediment Type:

Muddy sand/sandy mud with boulder

Fauna:

A: Stalked sponges (*Stylocordyla borealis*)

B: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

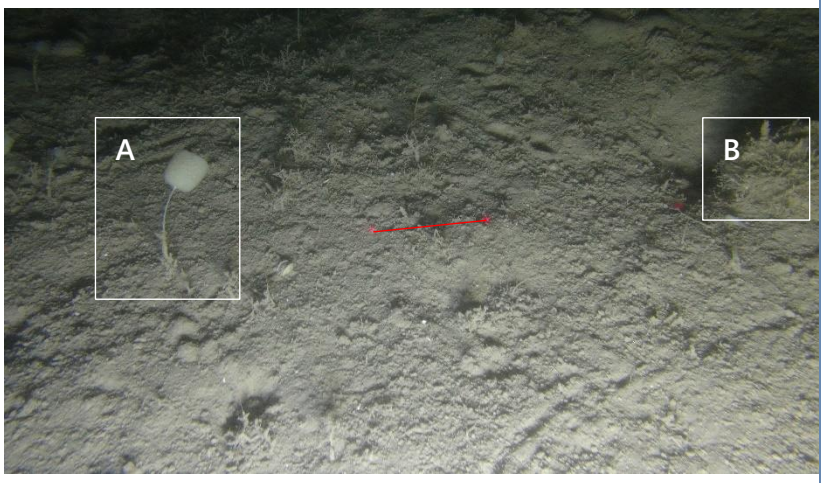
C: Redfish (Sebastidae)

D: Sponges (Porifera)

Faunal tracks and burrows

Notes: Laser distance (red) is 6.5 cm

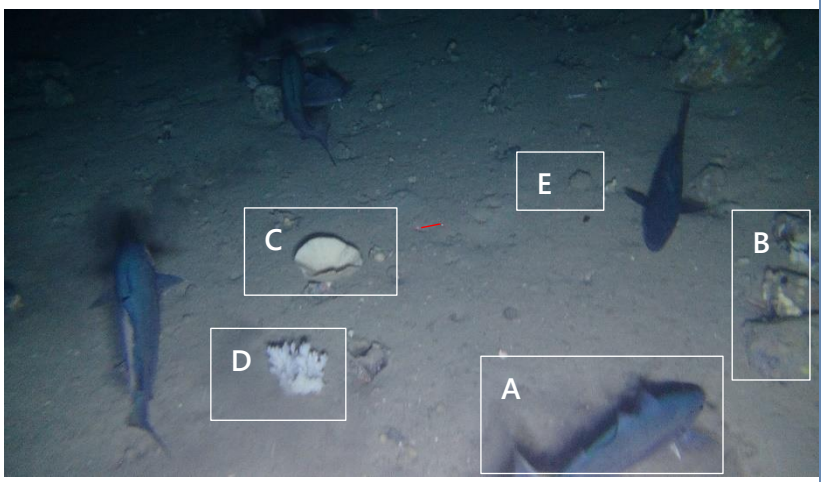
ABP21307-TR02A



Photograph:
ABP21307-TR02A-04

Sediment Type:
Muddy sand/sandy mud

Fauna:
A: Stalked sponges (*Stylocordyla borealis*)
B: Faunal turf (Hydrozoa/Bryozoa)
Faunal tracks



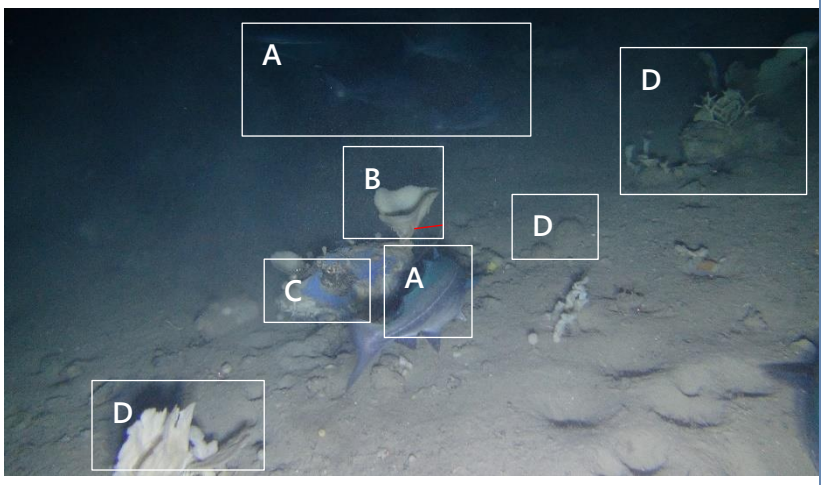
Photograph:
ABP21307-TR02A-21

Sediment Type:
Muddy sand/sandy mud with cobbles

Fauna:
A: Saithe (*Pollachius virens*)
B: Encrusting sponges (Porifera)
C: Sponge (Axinellidae)
D: Glass sponge (*Asconema* sp.)
E: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae

Notes: Laser distance (red) is 6.5 cm

ABP21307-TR03



Photograph:
ABP21307-TR03-20

Sediment Type:

Muddy sand/sandy mud

Fauna:

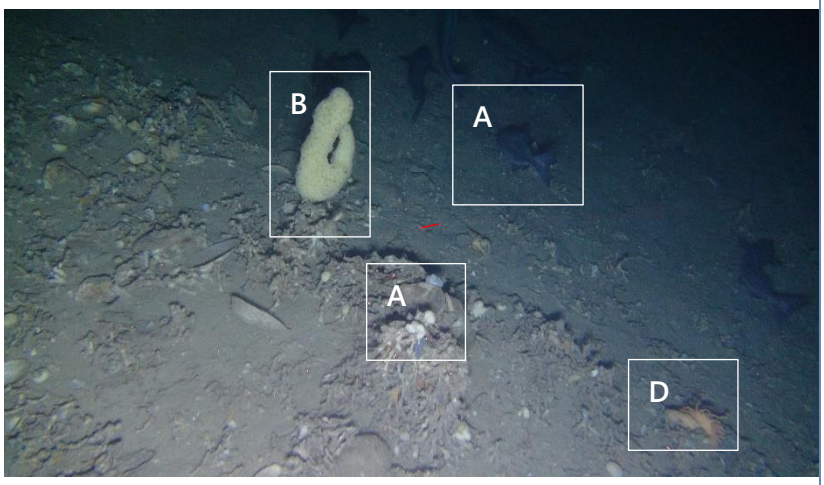
A: Saithe (*Pollachius virens*)

B: Sponges (Axinellidae)

C: Encrusting sponges (Porifera including *Hymedesmia paupertas*)

D: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

Faunal tracks and burrows



Photograph:
ABP21307-TR03-32

Sediment Type:

Muddy sand/ sandy mud with coral rubble and shells

Fauna:

A: Saithe (*Pollachius virens*)

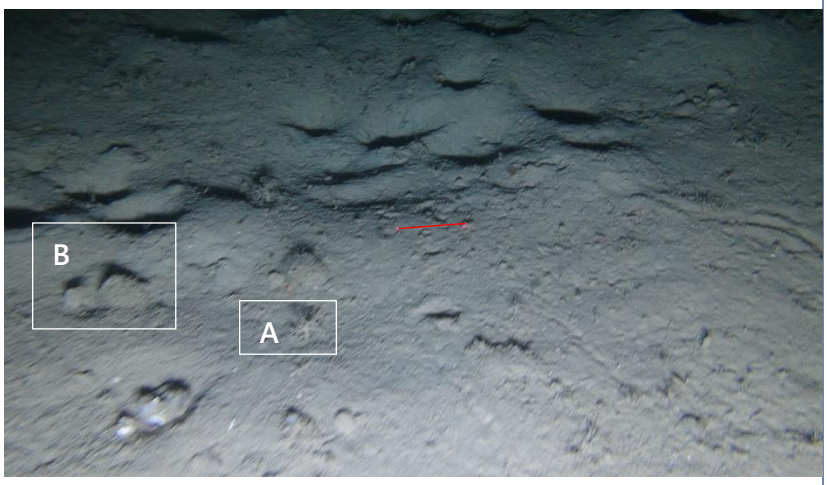
B: Sponge (*Mycale lingua*)

C: Sponges (Porifera)

D: Anemone (Actiniaria)

Notes: Laser distance (red) is 6.5 cm

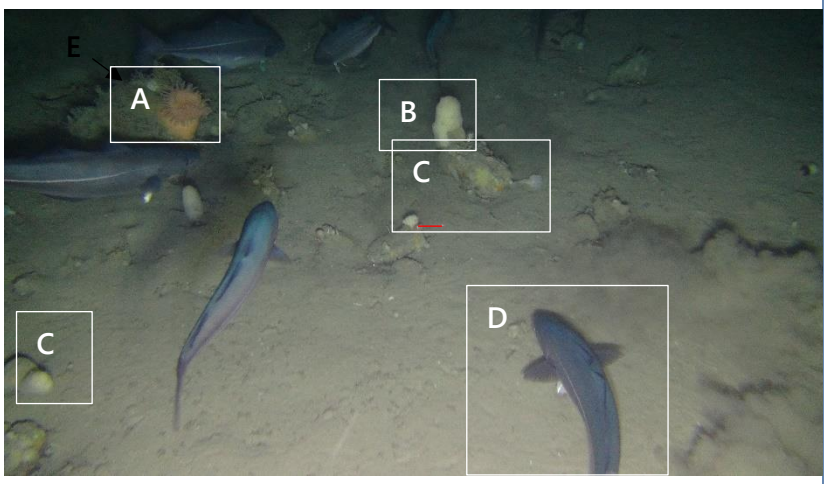
ABP21307-TR04



Photograph:
ABP21307-TR04-24

Sediment Type:
Muddy sand/sandy mud

Fauna:
A: Faunal turf (Hydrozoa/Bryozoa)
B: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)
Faunal tracks and burrows



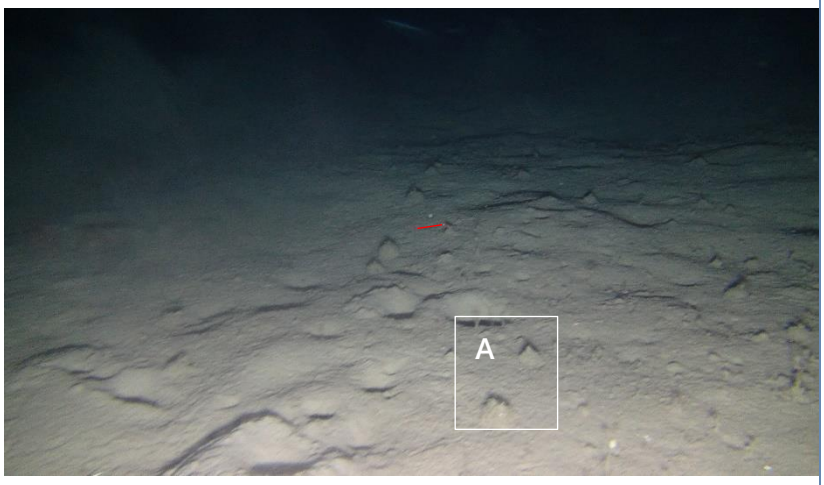
Photograph:
ABP21307-TR04-03

Sediment Type:
Muddy sand/sandy mud with cobbles

Fauna:
A: Anemone (*Actinostola callosa*)
B: Sponge (*Mycale lingua*)
C: Sponges (Porifera)
D: Saithe (*Pollachius virens*)

Notes: Laser distance (red) is 6.5 cm

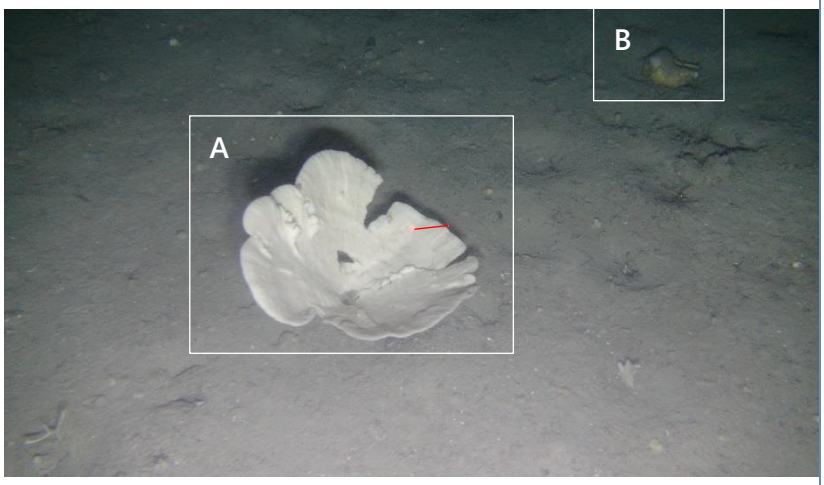
ABP21307-TR05



Photograph:
ABP21307-TR05-18

Sediment Type:
Muddy sand/sandy mud

Fauna:
A: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)
Faunal tracks and burrows



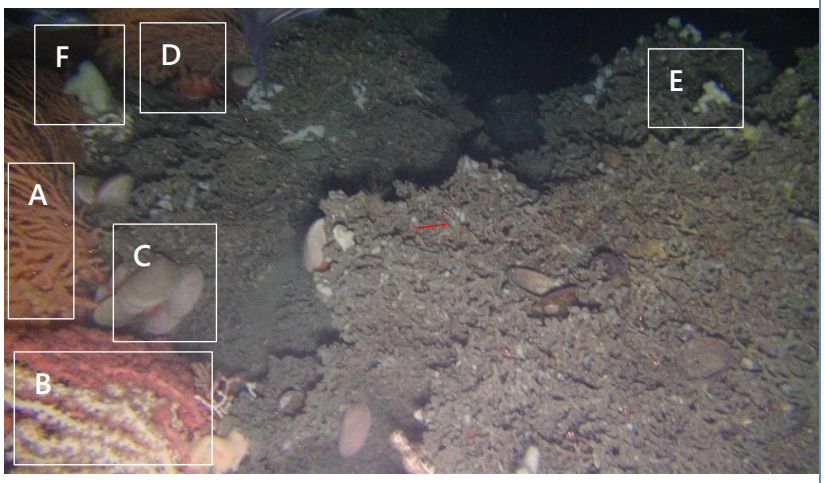
Photograph:
ABP21307-TR05-45

Sediment Type:
Muddy sand/sandy mud

Fauna:
A: Sponges (Axinellidae)
B: Sponge (Porifera)

Notes: Laser distance (red) is 6.5 cm

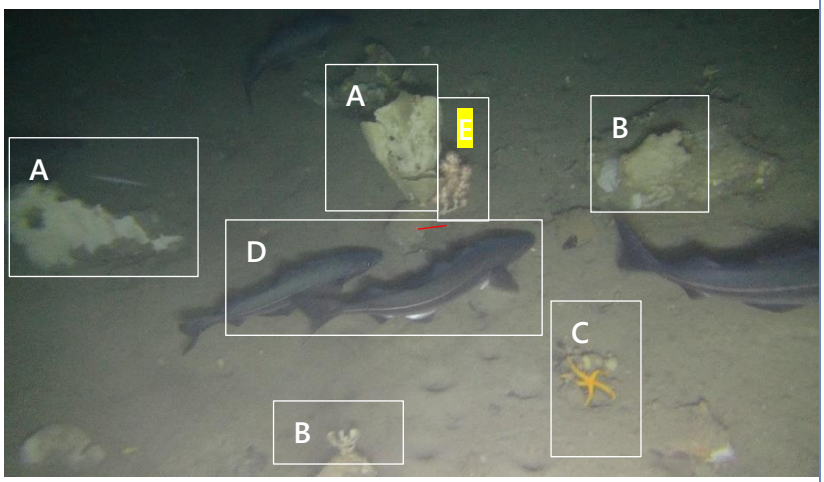
ABP21307-TR06



Photograph:
ABP21307-TR06-19

Sediment Type:
Coral framework

Fauna:
A: Gorgonian corals (*Paragorgia arborea)*
B: Gorgonian corals (*Primnoa resedaeformis*)
C: File shells (*Acesta excavata*)
D: Redfish (Sebastidae)
E: Sponges (Porifera)



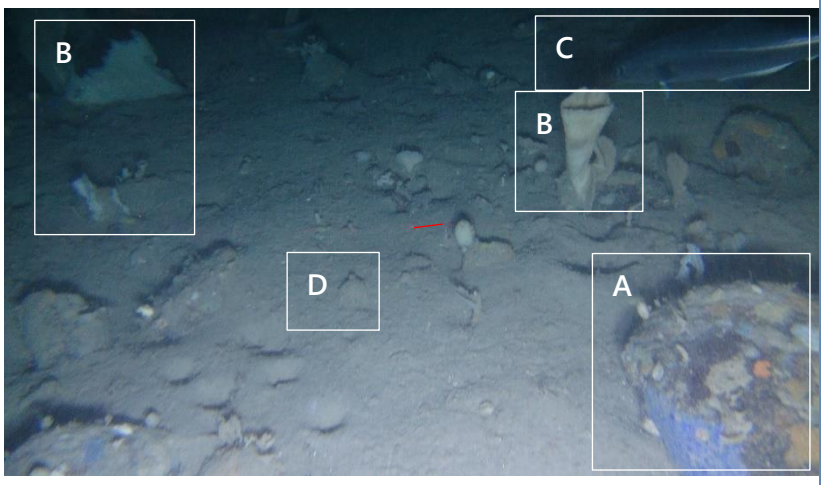
Photograph:
ABP21307-TR06-50

Sediment Type:
Muddy sand/sandy mud with cobbles

Fauna:
A: Sponges (Axinellidae)
B: Sponges (Porifera)
C: Starfish (Henricia sp.)
D: Saithe (*Pollachius virens*)
E: Gorgonian *coral (Alcyonacea*)

Notes: Laser distance (red) is 6.5 cm

ABP21307-TR07



Photograph:
ABP21307-TR07-21

Sediment Type:

Muddy sand/sandy mud with cobbles

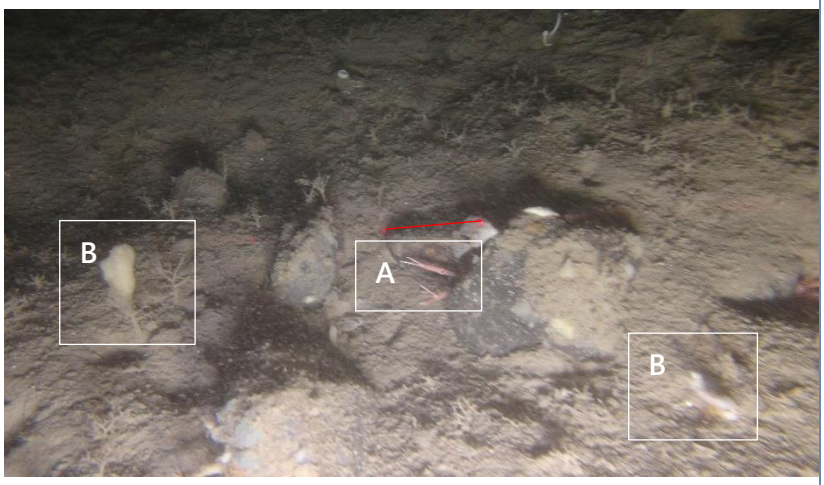
Fauna:

A: Encrusting sponges (Porifera, including *Hymedesmia paupertas*),

B: Sponges (Porifera, including Axinellidae)

C: Saithe (*Pollachius virens*)

D: Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)



Photograph:
ABP21307-TR07-20

Sediment Type:

Muddy sand/sandy mud with cobbles

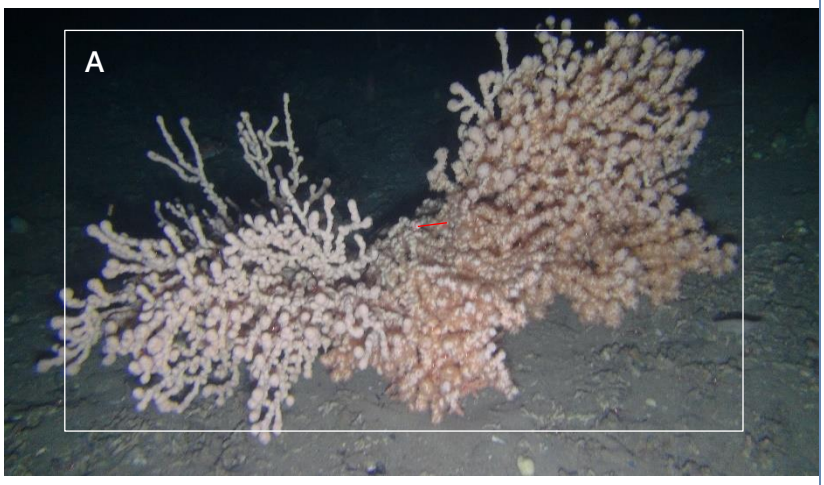
Fauna:

A: Squat lobster (*Munida* sp.)

B: Sponges (Porifera)

Notes: Laser distance (red) is 6.5 cm

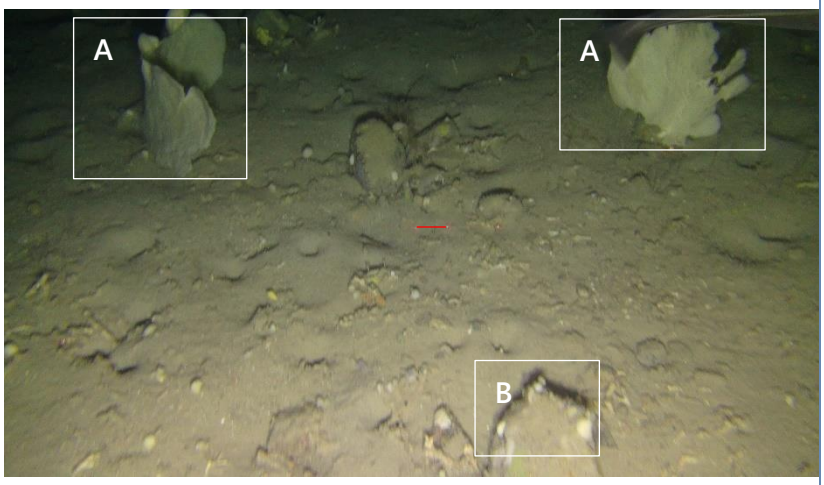
ABP21307-TR08



Photograph:
ABP21307-TR08-23

Sediment Type:
Muddy sand/sandy mud with coral rubble

Fauna:
A: Gorgonian coral (*Paragorgia arborea*)



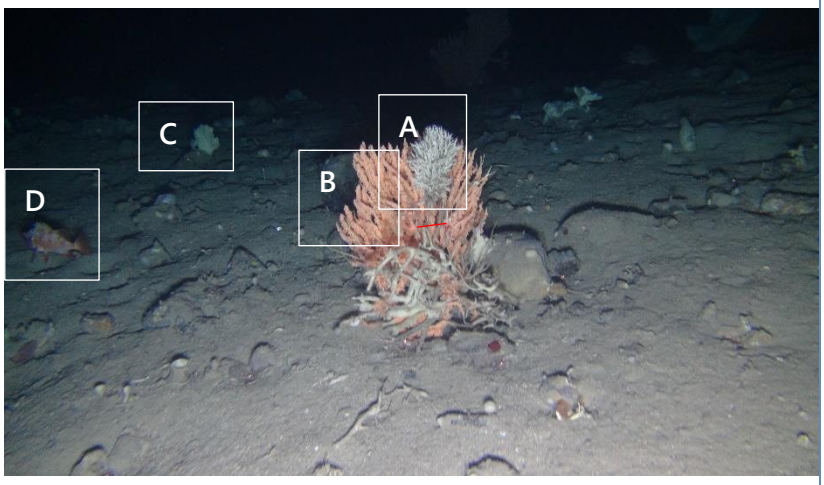
Photograph:
ABP21307-TR08-31

Sediment Type:
Muddy sand/sandy mud with cobbles

Fauna:
A: Sponges (Axinellidae)
B: Sponges (Porifera)

Notes: Laser distance (red) is 6.5 c

ABP21307-TR09



Photograph:
ABP21307-TR09-25

Sediment Type:

Muddy sand/sandy mud with cobbles

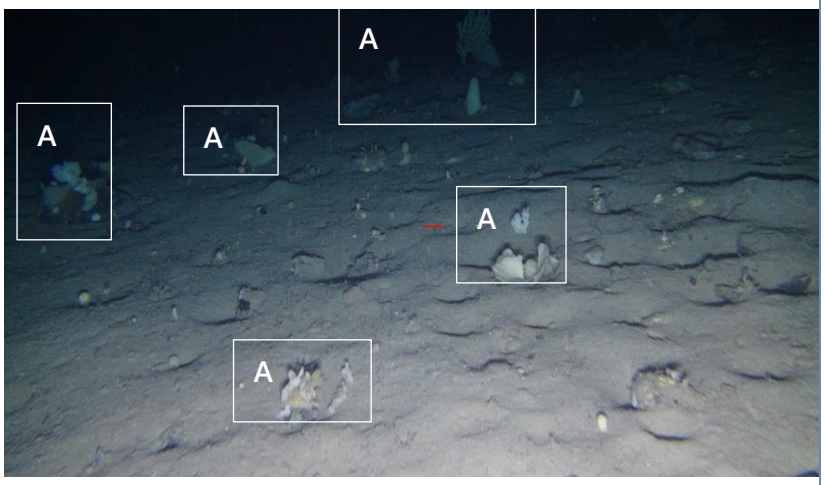
Fauna:

A: Tube-building polychaete (*Filograna/Salmacina*)

B: Gorgonian corals (*Primnoa resedaeformis*)

C: Sponges (Axinellidae)

D: Redfish (Sebastidae)



Photograph:
ABP21307-TR09-23

Sediment Type:

Muddy sand/sandy mud

Fauna:

A: Sponges (Porifera, including Axinellidae)

Notes: Laser distance (red) is 6.5 cm

Site Survey at Storjo East

Environmental Habitat Report
Planned Well Locations Storjo East

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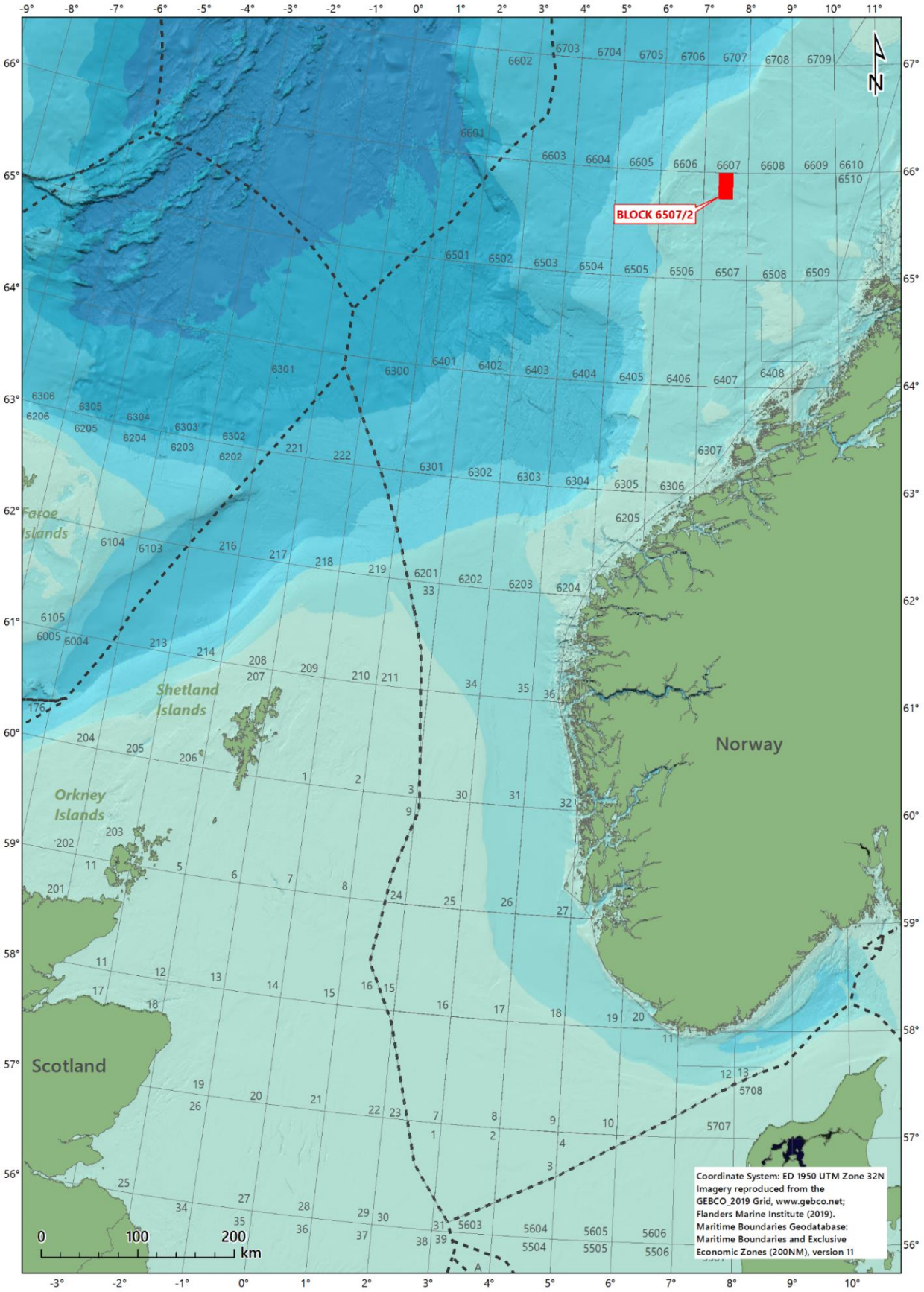
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Document Change Log

No.	Section	Change Description
1	Table 1.4	Project geodetic and projection parameters amended

Frontispiece



Executive Summary

Introduction

On the instruction of Aker BP ASA, Fugro performed a site survey at the Storjo East survey area. The site was located in the Norwegian Continental Shelf (NCS) Block 6507/02 of the Norwegian Sea. Operations were conducted onboard the Far Sapphire during the survey period 16 to 18 September 2021.

Table S.1 presents the surface coordinates of the Storjo East planned well locations (PWL).

Table S.1: Planned well locations

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]				
Location	Easting	Northing	Latitude	Longitude
Storjo East PWL	434 669	7 298 195	65° 47′ 48.702″ N	007° 34′ 18.806″ E
Alternative PWL	434 469	7 297 312	65° 47′ 20.045″ N	007° 34′ 04.657″ E

Notes
PWL = Planned well location

The site survey comprised a geophysical survey, a geotechnical survey and a habitat assessment.

Appendix A outlines the guidelines for use of this report

Survey Strategy

Following a review of the geophysical data, 22 transects were proposed to describe the sensitive habitats and species that may occur within the survey area, including two 'bow-tie' transects cantered over the two PWLs. Six transects were selected within the 500 m zones of the two PWLs and ten transects were selected to cover all anchor chair corridors. One transect coincided with a transect running along one of the anchor corridors, which rendered it superfluous to requirements and was not completed.

The most relevant sensitive habitats for the current survey were 'Cold water corals' and 'Coral gardens'. If any such habitats were discovered, a sensitive habitat assessment was carried in accordance with Norwegian guidelines and standards.

Bathymetry and Seabed Features

Water depths across the survey area ranged from 296 m Mean Sea Level (MSL) south-south-east of the PWL to 358 m MSL south-west of the PWL. The seabed was characterised by numerous iceberg ploughmarks and high sonar reflectivity areas with measurable height were identified as coral and potential coral within the survey area.

Seabed Habitats

The sediment observed was predominantly sandy mud/muddy sand with varying proportions of gravel, cobbles and occasional boulders. This corresponded to the level 3 EUNIS habitats 'Deep-sea

mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). Small areas of *Desmophyllum pertusum* framework (living and dead) were classified as A5.631 Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs.

The epifauna recorded associated with the soft sediments included mud-covered mud covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), anemones (Ceriantharia) and cushion stars (Valvatida including *Porania pulvillus*). The dominant epifauna associated with mixed substrata included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), anemones (*Actinostola callosa* and squat lobsters (Galatheoidea).

Epifauna recorded associated with coral rubble and coral framework included file shells (*Acesta excavata*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*) and sponges (Demospongiae).

Fish recorded in the survey area included saithe (*Pollachius virens*), forkbeard (*Phycis* sp.), halibut (*Hippoglossus hippoglossus*), rabbitfish (*Chimaera monstrosa*), redfish (Sebastidae), tusk (*Brosme brosme*), ling (*Molva molva*) and flatfish (Pleuronectiformes). Fauna observed during the survey were typical of the region (Moen and Svensen, 2004; World Register of Marine Species [WoRMS] Editorial Board, 2021).

Potentially Sensitive Habitats or Species

Living *Desmophyllum pertusum* was observed at a number of locations, although with a low percentage cover and total living front area. These areas were classified as 'dead'. Throughout the survey are one area of *D. pertusum* reef was classified as 'good', three areas as 'fair' and eight areas as 'poor'. The area recorded as 'good' and one of the areas recorded as 'fair' were located within 500 m of the alternative PWL and one of the areas recorded as 'poor' was located within 500 of the PWL.

Three hard-bottom coral garden species were recorded during the current survey including *Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*. The majority of the records were classified as 'single *Paragorgia* on boulder' (1 coral colony per 25 m^2) or 'poor' (< 5 coral colonies per 25 m^2). Two areas with coral condition classified as 'excellent' were found within 500 m of the PWL and one area within anchor corridor 6 within 500 m from the alternative PWL. Five areas classified as 'good' were found within 500 m of either the PWL or the alternative PWL. Nine areas of hard-bottom coral gardens classified as 'excellent' and ten classified as 'good' were found along the anchor corridors.

Soft-bottom sponges were recorded in low densities throughout the survey area. Where present, soft-bottom sponges were recorded as either 'single individual' (< 1 % cover) or 'rare' (< 1 % cover). Small areas were classified as 'scattered' (1 % to 5 % cover).

Hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover) with some sections classified as 'common' (5 % to 10 % cover) and 'high' (> 15 % cover).

To represent the OSPAR habitat 'Deep-sea sponge aggregations' soft-bottom sponges must be classified as 'high' (> 10 % cover) density. Therefore, the sponge communities recorded across the

Storjo East survey area do not constitute the OSPAR (2010b) listed habitat 'Deep-sea sponge aggregations'.

Sea pens were sparse throughout the survey area and were classified as 'poor' (< 5 specimens per 25 m^2).

The coral species *P. arborea* and *D. pertusum* are currently listed as 'Near threatened' on the Norwegian Red List (NBIC, 2015). Within the family Sebastidae, *S. norvegicus* is listed as 'Endangered' (NBIC, 2015). Redfish were observed but could not be identified to species level. Other taxa recorded in the Storjo East survey area were assessed as 'least concern' or 'not evaluated'.

No other sensitive habitats or species were identified from either the geophysical or photographic data.

Document Arrangement

Volume 1	Field Operations Report, including Processing Report
Volume 2	Geophysical Interpretation Report
Volume 3	**Environmental Habitat Report (this volume)**
Volume 4	Geotechnical Report

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Abbreviations

BSL	Below sea level
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species
CM	Central meridian
CR	Critically endangered
DD	Data deficient
DNV	Det Norske Veritas
ED50	European Datum 1950
EEA	European Environment Agency
EMODnet	European Marine Observation and Data Network
EOL	End of line
EPSG	European Petroleum Survey Group
EUNIS	European Nature Information System
GNSS	Global Navigation Satellite System
IUCN	International Union for the Conservation of Nature
LC	Least concern
MBES	Multibeam echosounder
MSL	Mean Sea Level
MV	Motor vessel
NBIC	Norwegian Biodiversity Information Centre
NCS	Norwegian Continental Shelf
NEA	Norwegian Environment Agency
NME	Norwegian Ministry of Climate and Environment
NT	Near threatened
OSPAR	Oslo and Paris
PL	Production licence
PSA	Petroleum Safety Authority Norway
PWL	Planned well location
ROV	Remotely operated vehicle
SOL	Start of line
SSS	Side scan sonar
UNEP	United Nations Environmental Program

UTC	Coordinated Universal Time
UTM	Universal Transverse Mercator
VU	Vulnerable
WGS 84	World Geodetic System 1984
WoRMS	World Register of Marine Species
?	Identification not certain

1. Introduction

On the instruction of Aker BP ASA, Fugro performed a site survey at the Storjo East survey area. The site was located in the Norwegian Continental Shelf (NCS) Block 6507/02 of the Norwegian Sea. Environmental operations were conducted onboard the Far Sapphire during the survey period 16 to 18 September 2021. Geophysical survey was conducted onboard the MV Fugro Meridian during the survey period 3 to 19 September 2021.

Table 1.1 presents the surface coordinates of the Storjo East planned well locations (PWLs).

Table 1.1: Planned well locations

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]				
Location	Easting	Northing	Latitude	Longitude
Storjo East PWL	434 669	7 298 195	65° 47′ 48.702″ N	007° 34′ 18.806″ E
Alternative PWL	434 469	7 297 312	65° 47′ 20.045″ N	007° 34′ 04.657″ E

Notes
PWL = Planned well location

The Storjo East site survey included a shallow geophysical survey, a geotechnical survey and habitat assessment. This report details the results of the environmental habitat assessment.

Appendix A outlines the guidelines for use of this report.

1.1 Scope of Work

1.1.1 Geophysical Survey

The geophysical survey was carried out to provide anchoring conditions in an area previously covered by a 3D survey and to produce a combined dataset encompassing two PWLs; Storjo East and an alternative PWL.

1.1.2 Environmental Survey

The objective of the environmental survey was to map and characterise vulnerable species and habitats on the seabed along 'bow-tie' transects centred on the two PWLs, along the anchor corridors and nearby areas of interest identified from the geophysical survey data.

If any vulnerable habitats were discovered, a sensitive habitat assessment was to be carried out according to Norwegian guidelines (Norwegian Environment Agency [NEA], 2020; Det Norske Veritas [DNV], 2019).

1.2 Environmental Legislation

Petroleum activities on the NCS are subject to acts, regulations and management plans with detailed environmental requirements. The Nature Diversity Act, which came into force on 1 July 2009 (Backer, 2009), is a milestone in Norwegian environmental legislation and regulates the management of species and habitat protection. The Nature Diversity Act

replaces the 1970 Nature Conservation Act and is based on the 1992 Biodiversity Convention and serves as the legal basis for national implementation of other international instruments (e.g. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the World Heritage Convention and the Ramsar and Berne Conventions).

The national red list is a list of species and habitats that are threatened with extinction, are considered critically endangered, or are naturally rare. The red list is a prerequisite for a knowledge based management of biodiversity and is one of the criteria used for the selection of species for protection.

The Norwegian government also participates in several initiatives to preserve particularly important habitats and species. Under the Oslo and Paris (OSPAR) Convention, Norway has an international responsibility to safeguard a representative selection of fjord and coastal areas of types that are not present anywhere else in the world, as well as habitats and species listed as threatened or declining by OSPAR within Regions I and II. Norway also ratified the Convention on Biological Diversity (CBD) in 1993 and is participating in the CBDs 'Aichi-target' of at least 10 % of biologically important coastal and marine areas to be conserved by the year 2020.

The specific requirements pertaining to environmental monitoring are presented in Chapters X and XI of the Activities Regulations (Petroleum Safety Authority Norway [PSA], 2020). These requirements deal with the cooperation on and planning of environmental monitoring and baseline surveys, and surveys of benthic habitats and the water column. These chapters are complemented by Section 48 of the Framework Regulations, which requires the operator to monitor and record sufficient data from the external environment to ensure that all pollution generated is detected, mapped and assessed. In 2010, the detailed requirements for environmental monitoring were removed from the Activities Regulations and set out in the dedicated 'Guidelines for environmental monitoring of the petroleum activities on the Norwegian continental shelf', which has recently been updated (NEA, 2020). In 2019, DNV issued a handbook to supplement these guidelines by providing information on key species and habitats, such as corals and sponges, and methods for assessing the habitats, impact assessment, mitigation and documentation/monitoring of effects of drilling, anchoring and pipeline construction (DNV, 2019).

In addition, the industry has useful guidelines and best practice documents that have been developed to aid in a coherent industry practice with regards to environmental monitoring on the NCS. Several of these have been initiated by the Norwegian Oil and Gas Association. Table 1.2 presents the relevant legislations and documents.

Section 1.3 details how these requirements and guidelines have been incorporated into the habitat assessment.

Table 1.2: Relevant regulations

Acts
The Nature Diversity Act – Act of 19 June 2009 no.100 (Backer, 2009)
The Pollution Control Act – Act of 13 March 1981 No.6 (Regjeringen,2003)
Regulations
The Framework Regulation (Rammeforskriften) (PSA, 2019a)
The Management Regulation (Styringsforskriften) (PSA, 2019b)
The Activities Regulation (Aktivitetsforskriften) (PSA, 2020)
Pollution Regulation (Forurensningsforskriften)
Management Plans
Integrated Management of the Marine Environment of the Norwegian Sea (Norwegian Ministry of Climate and Environment [NME], 2009)
Guidelines
Environmental Monitoring of Petroleum Activities on the Norwegian Continental Shelf (NEA, 2020)
Handbook for Species and Habitats of Environmental Concern. Mapping, Risk Assessment, Mitigation and Monitoring. – In Relation to Oil and Gas Activities (DNV, 2019)
Red Lists
The 2015 Norwegian Red List for Species (Norwegian Biodiversity Information Centre [NBIC], 2015)
The 2018 Norwegian Red List for Ecosystems and Habitat Types (Arts Database, 2018)
The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species (IUCN, 2021)
OSPAR List of Threatened and/or Declining Species and Habitats (OSPAR, 2008)

1.3 Sensitive Habitats and Species

Table 1.3 provides a list of sensitive species and habitats that may occur within the current survey area, along with their relevant legislation.

Table 1.3: Sensitive species/habitats potentially present

Species/Habitat	Legislation	Description	Designation/Status
Desmophyllum pertusum (formerly *Lophelia pertusa*)	Activities Regulations	Coral reefs	Particularly vulnerable environmental resource
	OSPAR; List of Threatened and/or Declining Species and Habitats	*Lophelia pertusa* reefs; Coral gardens	Threatened and/or declining
	Norwegian Red List for Ecosystems and Habitats	Coral reef	Vulnerable
	Norwegian Red List for Species	*Lophelia pertusa*	Near threatened
Paragorgia arborea (Coral garden)	OSPAR; List of Threatened and/or Declining Species and Habitats	Coral garden	Threatened and/or declining
	Norwegian Red List for Ecosystems and Habitats	Coral garden	Near threatened
	Norwegian Red List for Species	*Paragorgia arborea*	Near threatened

Species/Habitat	Legislation	Description	Designation/Status
Madrepora oculata	Norwegian Red List for Species	*Madrepora oculata*	Data deficient
	Norwegian Red List for Ecosystems and Habitats	Coral reef	Vulnerable
	Activities Regulations	Coral reefs	Particularly vulnerable environmental resource
Deep-sea sponges	OSPAR; List of Threatened and/or Declining Species and Habitats	Deep-sea sponge aggregations	Threatened and/or declining habitat
Sea pen and burrowing megafauna communities	OSPAR; List of Threatened and/or Declining Species and Habitats	Sea pens and burrowing megafauna communities	Threatened and/or declining habitat

The current survey is located within NCS Block 650702 of the Norwegian Sea. The most relevant sensitive habitats for the current survey are considered to be 'Coral reefs', 'Coral gardens', 'Deep-sea sponge aggregations' and 'Sea pens and burrowing megafauna'.

1.3.1 Cold-water Corals

The cold-water coral *Desmophyllum pertusum,* formerly known as *Lophelia pertusa,* is known to be relatively abundant in the Norwegian Sea. *Desmophyllum pertusum* is the most important reef-building coral in the region, and provides valuable habitat for many other species, some of which have also been assigned a conservation status. The extent of D. *pertusum* reefs vary, with examples off Norway several km long and more than 20 m high (OSPAR, 2009).

Desmophyllum pertusum reefs occur on hard substrata which can be coral rubble from an old colony or glacial deposits; this suggests that D. *pertusum* reefs could be associated with iceberg ploughmark zones. The biological diversity associated to the reef was estimated to be three times as high as the surrounding soft sediment, suggesting that these cold-water coral reefs may be biodiversity hotspots. Characteristic species associated with the reef include other hard corals, such as *Madrepora oculata* and *Solenosmilia variabilis*, the redfish *Sebastes viviparous* and the squat lobster *Munida sarsi* (OSPAR, 2009).

Of all Norwegian marine habitat types, coral reefs are considered the most vulnerable. Between 30 % and 50 % of all coral reefs in Norwegian waters have been damaged to some extent, mostly by demersal fishing and this is considered of concern, given the slow growing nature of this cold-water coral species (OSPAR, 2009). Previous studies have determined linear growth rates of between 6 mm and 27 mm per year for *D. pertusum* (Lartaud et al., 2013) in a depth range of 200 m to 350 m (Roberts et al., 2009).

The cold-water coral *D. pertusum* is designated a 'Particularly vulnerable environmental resource' under the Activities Regulations, as threatened and/or in decline by the OSPAR Commission and are currently classified as 'Near threatened' on the Norwegian Red List (OSPAR, 2008; NBIC, 2015; PSA, 2020).

1.3.2 Coral Gardens

Coral gardens comprise aggregations of colonies or individuals of one or more coral species and can occur on a wide range of soft and hard bottom strata. The biological diversity of coral garden communities is typically high and often contains several species of coral belonging to different taxonomic groups (OSPAR, 2010a). When relatively dense colonies are observed over an area greater than 25 m^2, the area is considered a 'coral garden' under the definition provided by OSPAR (2010a).

Of importance are coral gardens containing the gorgonian corals *Paragorgia arborea* and *Primnoa resedaeformis*. The gorgonian coral, *P. arborea* is currently listed as 'Near threatened' on the Norwegian Red List. *Paragorgia arborea* is often found on coral rubble (dead coral reefs) and other hard substrates (DNV, 2019), whereas the bamboo coral *Isidella lofotensis* can be found on softer substrates (Buhl-Mortensen, 2018).

Coral gardens are listed as a 'Particularly vulnerable environmental resource' under the Activities Regulations, are designated as a 'Threatened and/or declining habitat' by the OSPAR Commission and are currently classified as 'Near threatened' in the Norwegian Red List for Ecosystems and Habitats (OSPAR, 2008; NBIC, 2015; PSA, 2020).

1.3.3 Deep-sea Sponges

Sponges (Porifera) are the most primitive group among multicelled organisms, and form one of the most ancient animal groups on the planet. Sponges are generally classified into four groups; Calcarea (kalksvamper), Hexactinellida (glassvamper), Demospongiae and Homoscleromorpha (horn- og kiselsvamper). More than 90 % of identified sponge species belong to the group Demospongiae (Moen & Svensen, 2004).

There are approximately 300 species of sponge in Norwegian waters, but there are reasonable grounds to believe that many species have yet to be registered and scientifically described. The knowledge base for half of the species is regarded as inadequate, and their vulnerability has not been assessed by the Norwegian biodiversity information centre. A total of 28 sponge species are on the Norwegian Red List, based on the criteria 'Data deficient', and one fresh water species is classified as 'Near threatened' (Oug & Rapp, 2015). United Nations Environmental Program (UNEP) states that deepwater sponge grounds meet the criteria of being vulnerable, based on the fact that they are limited to discrete areas, they support high biodiversity of other species, they are fragile and unlikely to recover from perturbations, and some are slow-growing, long-lived and form structural complex habitats (UNEP, 2010).

The habitat 'Deep-sea sponge aggregations' is designated threatened and/or declining by OSPAR (OSPAR, 2010b). The OSPAR Recommendation 2010/10 defines this habitat as "aggregations of deep-sea sponges extending over at least 25 m^2, that are principally composed of sponges from two classes: Hexactinellida and Demospongiae" (OSPAR, 2010b). However, the OSPAR background document for deep-sea sponge aggregations and the

OSPAR description of habitats document does not include area coverage in their definition of the habitat, but rather states that "sponges in the class Hexactinellida have been reported at densities of 4 to 5 per m^2, whilst 'massive' growth forms of sponges from the class Demospongiae have been reported at densities of 0.5 to 1 per m^2" (OSPAR, 2010b).

The Norwegian guideline for quantification of sponge communities regards densities of 0.5 to 1 per m^2 of sponges in the class Demospongiae to fall under the OSPAR habitat 'Deep-sea sponge aggregations'. The guideline further suggests that 0.5 to 1 sponge per m^2 is equal to approximately 10 % coverage of sponge (depending on the sizes of sponges) and thus that 10 % coverage of Demospongiae can be expected to qualify as the threatened OSPAR habitat 'Deep-sea sponge aggregations' (DNV, 2019).

1.3.4 Sea Pens and Burrowing Megafauna Communities

The habitat 'Sea pen and burrowing megafauna communities' is included on the OSPAR list (OSPAR, 2010c). This habitat typically consists of plains of muddy sand/sandy mud at water depths between 300 m to 330 m, which are bioturbated by burrowing megafauna with burrows and mounds typically forming a prominent feature of the sediment surface, with conspicuous populations of sea pens.

On the Norwegian continental shelf this biotope is typically inhabited by the sea pens *Funiculina quadrangularis*, *Virgularia mirabilis*, *Kophobelemnon stelliferum* and *Pennatula phosphorea*. The Norway lobster (*Nephrops norvegicus*), squat lobster (*Munida sarsi*) and sea cucumber (*Parastichopus tremulus*) are also common (MAREANO, 2019).

The Norwegian Guideline M408 on environmental monitoring of petroleum activities recommends that sea pen communities are mapped, as well as the spatial distribution of the sea pen, *Umbellula* sp. (NEA, 2020). Neither the NEA (2020) guidelines nor the DNV (2019) handbook explicitly consider the assessment of burrowing megafauna.

1.4 Coordinate Reference System

All coordinates detailed in this report are referenced to European Datum 1950 (ED50) (North of 62 N), Universal Transverse Mercator (UTM) projection Zone 32N central meridian (CM) 9º East. Table 1.4 provides the detailed geodetic and projection parameters.

Table 1.4: Project geodetic and projection parameters

Global Navigation Satellite System (GNSS) Geodetic Parameters *					
Datum:	World Geodetic System 1984 (WGS 84) (EPSG 4326)				
Ellipsoid:	WGS 84				
Semi-major axis:	a = 6 378 137.000 m				
Inverse flattening:	1/f = 298.257 223 563				
Local Datum Geodetic Parameters †					
Datum:	ED50 North of 62 deg N (EPSG 4230)				
Ellipsoid:	International 1924				
Semi-major axis:	a = 6 378 388.000 m				
Inverse flattening:	1/f = 297.000 000 000				
Datum Transformation Parameters from WGS84 to ED50 (EPSG 1612) – Coordinate Frame Rotation Convention ‡					
Shift dX:	+116.641	m	Rotation rX:	+0.893 arc sec	Scale Factor: +3.520 ppm
Shift dY:	+56.931	m	Rotation rY:	+0.921 arc sec	
Shift dZ:	+110.559	m	Rotation rZ:	-0.917 arc sec	
Project Projection Parameters					
Map Projection:	Universal Transverse Mercator (UTM)				
Grid System:	UTM Zone 32 N				
Central Meridian:	09° 00′ 00″ East				
Latitude of Origin:	00° 00′ 00″ North				
False Easting:	500 000 m				
False Northing:	0 m				
Scale factor on Central Meridian:	0.9996				
Units:	metre				

Notes
* = Fugro Starfix navigation software uses WGS 84 geodetic parameters as a primary datum for any geodetic calculations
† = Source: Client
‡ = This is the right-hand coordinate frame rotation used by the Fugro Starfix navigation software
EPSG = European Petroleum Survey Group

2. Survey Strategy

2.1 Geophysical Data

The geophysical site survey comprised a shallow geophysical survey encompassing two PWLs. The survey was designed as a circular 3 km radius grid around the Storjo East PWL. Dual frequency side scan sonar (SSS), single and multibeam echosounder data were collected along all lines.

2.2 Habitat Assessment

The environmental survey comprised two 'bow-tie' formations, one on Storjo East PWL and one on the Alternative PWL. The bow tie formations comprised three transects and were orientated to investigate features of interest identified from the SSS and bathymetry data. Six additional transects were selected within 500 m of the PWLs, to ground-truth areas of interest including possible corals.

Ten anchor corridors were proposed, running from Storjo East PWL, for a distance of 3 km. A transect ran along each anchor corridor, from a distance of 1 km from the PWL, to the end of each corridor.

Table 2.1 provides the coordinates, data to be acquired and rationale for each proposed location. Figure 2.1 provides a spatial display of the proposed locations overlaid on a SSS mosaic.

Table 2.1: Proposed camera transects

Geodetic Parameters: ABP21308					
Transect		Easting	Northing	Rationale	Data Acquisition
Bow-tie Transects					
ABP21308-TR01	SOL	434 419	7 298 195	Bow-tie transect covering Storjo PWL. Transect intersects ridge features seen regularly across the survey area as a whole. Potential coral in places	Video, stills
	EOL	434 919	7 298 195		
ABP21308-TR02	SOL	434 669	7 297 945	Bow-tie transect covering Storjo PWL. Transect intersects ridge features seen regularly across the survey area as a whole. Potential coral in places	Video, stills
	EOL	434 669	7 298 445		
ABP21308-TR03	SOL	434 669	7 297 945	Bow-tie transect linking TR01 and TR02. Transect oriented along a ridge of potential coral, representing similar ridge features in the area	Video, stills
	EOL	434 919	7 298 195		

Geodetic Parameters: ABP21308					
Transect		Easting	Northing	Rationale	Data Acquisition
ABP21308-TR04	SOL	434 219	7 297 312	Bow-tie transect covering Alternative Storjo PWL. Transect intersects ridge features seen regularly across the survey area as a whole. Potential coral in places	Video, stills
	EOL	434 719	7 297 312		
ABP21308-TR05	SOL	434 469	7 297 062	Bow-tie transect covering Alternative Storjo PWL. Transect intersects ridge features seen regularly across the survey area as a whole. Potential coral in places	Video, stills
	EOL	434 469	7 297 562		
ABP21308-TR06	SOL	434 469	7 297 562	Bow-tie transect linking TR04 and TR05. Transect oriented along a ridge of potential coral, representing similar ridge features in the area	Video, stills
	EOL	434 219	7 297 312		
Transects within 500 m of the PWLs					
ABP21308-TR07	SOL	434 386	7 298 602	Transect targeting ploughmark and possible coral feature on the north-west edge of the 500 m radius buffer zone, around Storjo main PWL	Video, stills
	EOL	434 377	7 298 368		
ABP21308-TR08	SOL	434 425	7 298 136	Transect targeting raised ridge with possible coral feature to the south-west of Storjo main PWL	Video, stills
	EOL	434 415	7 297 931		
ABP21308-TR09	SOL	434 911	7 298 527	Transect targeting ploughmark with possible coral feature to the north-east of Storjo main PWL	Video, stills
	EOL	435 113	7 298 426		
ABP21308-TR10	SOL	434 678	7 297 751	Transect targeting raised ridge with possible coral feature to the north-east of Storjo Alternative PWL, on the edge of the 500 m buffer	Video, stills
	EOL	434 803	7 297 615		
ABP21308-TR11	SOL	434 135	7 297 470	Transect targeting ploughmark with possible coral feature to the west of Storjo Alternative PWL	Video, stills
	EOL	434 142	7 297 231		
ABP21308-TR12	SOL	434 276	7 296 837	Transect targeting ploughmark and possible coral feature on the south-south-west edge of the 500 m radius buffer zone, around Storjo Alternative PWL	Video, stills
	EOL	434 232	7 296 996		
Anchor Corridor Transects					
ABP21308-TR13	SOL	434 641.8	7 299 185.4	Transect along anchor corridor 1 (357°)	Video, stills
	EOL	434 583.3	7 301 193.8		
ABP21308-TR14	SOL	436 437.4	7 300 629.3	Transect along anchor corridor 2 (035°)	Video, stills
	EOL	435 276.2	7 298 990.7		
ABP21308-TR15	SOL	435 658.0	7 298 325.9	Transect along anchor corridor 3 (081°)	Video, stills
	EOL	437 646.4	7 298 597.8		

Geodetic Parameters: ABP21308					
Transect		Easting	Northing	Rationale	Data Acquisition
ABP21308-TR16	SOL	435 555.8	7 297 734.2	Transect along anchor corridor 4 (116°)	Video, stills
	EOL	437 336.1	7 296 817.9		
ABP21308-TR17	SOL	435 969.0	7 295 492.0	Transect along anchor corridor 5 (153°)	Video, stills
	EOL	435 101.6	7 297 296.4		
ABP21308-TR18	SOL	434 343.2	7 297 251.4	Transect along anchor corridor 6 (198°)	Video, stills
	EOL	433 674.5	7 295 355.0		
ABP21308-TR19	SOL	432 173.5	7 296 530.9	Transect along anchor corridor 7 (235°)	Video, stills
	EOL	433 839.4	7 297 638.0		
ABP21308-TR20	SOL	433 682.2	7 298 058.6	Transect along anchor corridor 8 (261°)	Video, stills
	EOL	431 695.5	7 297 793.2		
ABP21308-TR21	SOL	432 026.5	7 299 623.1	Transect along anchor corridor 9 (297°)	Video, stills
	EOL	433 795.0	7 298 670.9		
ABP21308-TR22	SOL	434 236.2	7 299 094.7	Transect along anchor corridor 10 (333°)	Video, stills
	EOL	433 374.7	7 300 902.3		

Notes
SOL = Start of line
EOL = End of line
PWL = Planned well location

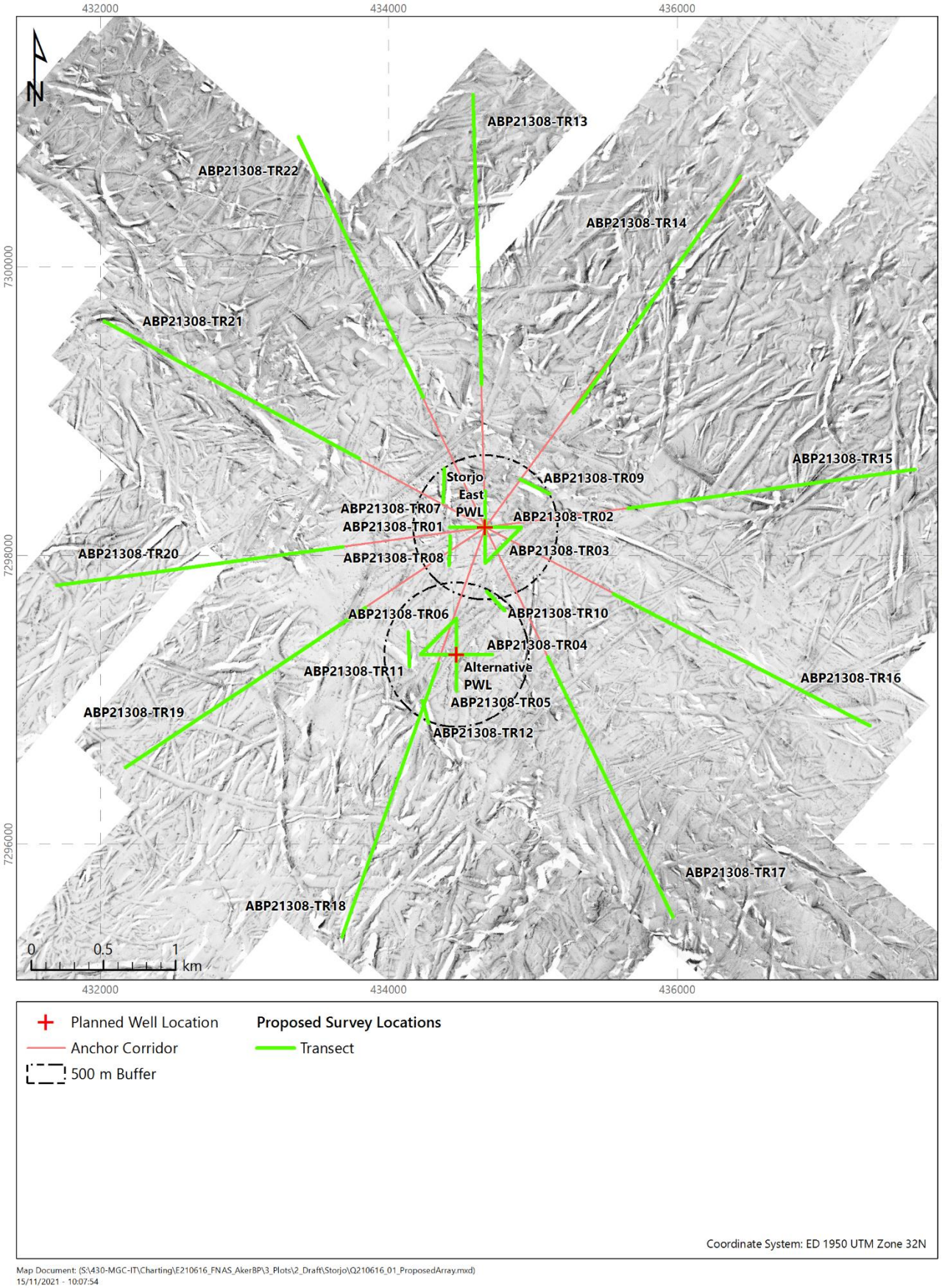


Figure 2.1: Proposed environmental survey locations overlain on the side scan sonar mosaic

3. Methods

3.1 Survey Methods

3.1.1 Bathymetry

Bathymetric data were acquired using a multibeam echosounder (MBES). Water depths were quoted relative to Mean Sea Level (MSL) and were accurate in the order of ± 1 m. Fugro's Starfix system was used as the primary navigation system.

3.1.2 Seabed Features

Seabed features and obstructions have been interpreted from MBES and dual frequency SSS (410 kHz and 120 kHz) data. The horizontal accuracy of the SSS data is approximately 1.0 m; obstructions smaller than this may not have been detected. The SSS mosaic dataset is resampled to a resolution of 0.5 m.

The positional accuracy of features interpreted from the SSS data depends on a combination of the vessel positioning, acoustic positioning of the towfish relative to the vessel and interpretation of position relative to the towfish. For this dataset, the overall positional accuracy is estimated as ± 5 m. Where seabed features show a bathymetric expression, the positions were defined using a combination of SSS and MBES datasets.

3.1.3 Seabed Photography

Seabed imagery was acquired using a Magnum 114 ROV, with one high resolution Ocean ProHD miniature camera head (also used for acquisition of still images), one standard definition camera (with overlay), and illumination provided by Oceaneering's HID-200 Gas Arc Lamps.

The standard NS EN 16260:2012 "Visual seabed surveys using remotely operated and towed observation gear for collection of environmental data" was used as a basis for visual mapping (Norwegian Standards, 2021).

3.2 Interpretation Methods

3.2.1 Seabed Habitats/Biotopes Classification

To assess the habitats that were present within the survey area, detailed analysis of video and still photographic data was undertaken. Video data were reviewed in conjunction with the still photographs, noting the locations of any observed changes in sediment type and/or associated faunal community.

Taxa were recorded to the lowest possible taxonomic level. It should be noted that many species cannot be identified from photographic data alone and, as such, higher taxonomic levels were used.

Descriptions of the substrate composition was undertaken for each video segment corresponding to sediment changes. These descriptions are largely based on a reclassification of the Folk (1954) sediment description developed to support the European Nature Information Service (EUNIS) habitat classification (Long, 2006). Folk based classifications are defined by the combined proportions of 'mud', 'sand' and 'gravel'. For example, a description of 'muddy sand' defines sediments that have sand as the principle component (50 % to 90 %), mud as a secondary component (10 % to 50 %) and minimal gravel (< 5 %; Kaskela et al., 2019). The Wentworth (1922) classification, which differentiates sediment based on dimension, was also utilised for sediment fractions identifiable in photographic data analysis (e.g. 'pebbles', 'cobbles' and 'boulders').

The Folk (1954) sediment description was reclassified into four categories, namely 'coarse sediment', 'mixed sediment', 'mud and sandy mud' and 'sand and muddy sand' (Long, 2006), with a further three sub-categories, namely 'mud', sandy mud' and 'muddy sand', considered (Kaskela et al., 2019) to clarify differences in sands to muddy sand. The European Marine Observation and Data Network (EMODnet) Geology Consortium further revised these categories to include 'rock and boulders' (Kaskela et al., 2019), which includes 'cobbles' and 'boulders', as per the Wentworth (1922) classification, and bedrock. The presence of shell fragments and anthropogenic features were also noted, where appropriate.

Table 3.1 presents a summary of the sediment particle sizes and corresponding classifications.

Table 3.1: Sediment particle size and classification terms

<table>
<tr><th>Particle Size</th><th>Wentworth (1922)</th><th>Folk (1954)</th><th colspan="4">Folk, 5 classes (Kaskela et al., 2019)</th></tr>
<tr><td>> 256 mm</td><td>Boulder</td><td rowspan="8">Gravel</td><td colspan="4">Rock and boulders</td></tr>
<tr><td>64 mm to 256 mm</td><td>Cobble</td></tr>
<tr><td>32 mm to < 64 mm</td><td rowspan="4">Pebbles</td><td rowspan="9">Coarse sediment:
(Gravel ≥ 80 %,
or
Gravel ≥ 5 %
and Sand ≥ 90 %)</td><td rowspan="10">Mixed sediment:
(Mud ≥ 10 % - 95 %
Sand < 90 %
Gravel ≥ 5%)</td><td rowspan="10">Mud to muddy sand*:
(Mud 10 % - 95 %
Sand < 90 %
Gravel < 5 %)</td><td rowspan="10">Sand:
(Mud < 10 %
Sand ≥ 90 %
Gravel < 5%)</td></tr>
<tr><td>16 mm to < 32 mm</td></tr>
<tr><td>8 mm to < 16 mm</td></tr>
<tr><td>4 mm to < 8 mm</td></tr>
<tr><td>2 mm to < 4 mm</td><td>Granules</td></tr>
<tr><td>1 mm to < 2 mm</td><td>Very coarse sand</td><td rowspan="5">Sand</td></tr>
<tr><td>0.5 mm to < 1 mm</td><td>Coarse sand</td></tr>
<tr><td>0.25 mm to < 0.5 mm</td><td>Medium sand</td></tr>
<tr><td>0.125 mm to < 0.25 mm</td><td>Fine sand</td></tr>
<tr><td>62.5 µm to 0.125 mm</td><td>Very fine sand</td></tr>
<tr><td>> 4 µm to 62.5 µm</td><td>Silt</td><td rowspan="2">Mud</td><td rowspan="2">-</td></tr>
<tr><td>> 1 µm to 4 µm</td><td>Clay</td></tr>
<tr><td colspan="7">Notes
* = Mud to muddy sand includes:
Mud (Mud ≥ 90 %, Sand <10 %, Gravel < 5%);
Sandy mud (Mud 50 % to 90 %, Sand 10 % to 50 %, Gravel < 5%);
Muddy sand (Mud 10 % to 50 %, Sand 50 % to 90 %, Gravel < 5%) (Kaskela et al., 2019)</td></tr>
</table>

Habitats within the survey area have been classified in accordance with the EUNIS habitat classification (European Environment Agency [EEA], 2019). Table 3.2 summarises the EUNIS hierarchy, with an example of the coding system. The EUNIS classification system is designed to incorporate small-scale temporal variations (e.g. seasonal) into the biotope/habitat categories. However, biological communities and marine environments can be highly dynamic and temporally variable, therefore the biotopes and habitats identified by the current assessment are representative of the survey area at the time of sampling only.

EUNIS classifications were coded for each habitat type observed from video data. Although, theoretically, a biotope can be assigned to any sized area of seabed, for the purposes of this assessment the commonly accepted minimum habitat size of 25 m^2 (Parry, 2019) was adopted.

Table 3.2: EUNIS biotope classification hierarchy example

Level	Example Classification Name	Example Classification Code
1. Environment	Marine habitats	A
2. Broad habitat types	Sublittoral sediments	A5
3. Habitat complex	Sublittoral sand	A5.2
4. Biotope complexes	Circalittoral muddy sand	A5.26
5 & 6. Biotopes and sub-biotopes	*Amphiura brachiata* with *Astropecten irregularis* and other echinoderms in circalittoral muddy sand	A5.262

It should be noted that the EUNIS classification system is not specific to Norwegian conditions. The identified species within the survey area may therefore be different from example species listed for specific biotopes in the EUNIS system.

3.2.2 Sensitive Habitats and Species

Sensitive habitats and species of potential relevance to the survey area have been outlined in Section 1.3. The following methods for assessment were utilised.

3.2.2.1 Cold-water Corals

The geophysical data was reviewed to delineate potential cold-water coral habitats. The photographic analysis data were used to ground-truth the geophysical data. The coral areas interpreted from the photographic analysis were overlain onto the geophysical data and the initial interpreted coral areas. The boundaries of the coral areas were then refined where appropriate.

Each ground-truthed area of interpreted coral was assessed to give an overall designation of the condition of the *D. pertusum* on the structure, based on the criteria set out by the DNV guidelines (DNV, 2019).

Photographic data were reviewed with the start and end location of each *D. pertusum* colony recorded. The percentage cover of living *D. pertusum* and dead *D. pertusum* was calculated from the photographic data. These values were then used to define the criteria for coral condition (Table 3.3).

Table 3.3: Single *Desmophyllum pertusum* colony classification

Desmophyllum		Density of living polyps on colony front [%]				
		< 5	5 – 20	20 – 40	40 – 60	> 60
Total area of living *Desmophyllum* polyps on colony front	**< 2.5 m²** Length and height: < 1.6 m or radius < 0.9 m	Dead	Poor	Poor	Fair	Good
	2.5 m² – 10 m² Length and height: 1.6 m – 3.2 m or radius 0.9 m – 1.8 m	Dead	Poor	Fair	Good	Excellent
	10 m² – 25 m² Length and height: 3.2 m – 5 m or radius 1.8 m -2.8 m	Poor	Fair	Good	Good	Excellent
	> 25 m² Length and height: 5 m or radius > 2.8 m	Fair	Fair	Good	Excellent	Excellent

3.2.2.2 Coral Gardens

The number and location of gorgonian corals was recorded along each camera transect. If colonies were observed over an area more than 25 m^2, the area was considered a 'Coral garden' under the definition provided by OSPAR (2010a).

Following identification of areas of coral garden, the condition was assessed according to the guidelines set out by DNV (2019). The categories of '*Paragorgia*, single on boulder', 'poor', 'fair', 'good' and 'excellent' were then applied depending on the average density of the colonies found in the area. Table 3.4 details the different conditions and densities for coral gardens.

Table 3.4: Coral garden assessment criteria

Condition	Coral colonies [per 25 m^2]
Paragorgia, single on boulder	1
Poor	< 5
Fair	5 – 10
Good	10 – 15
Excellent	> 15

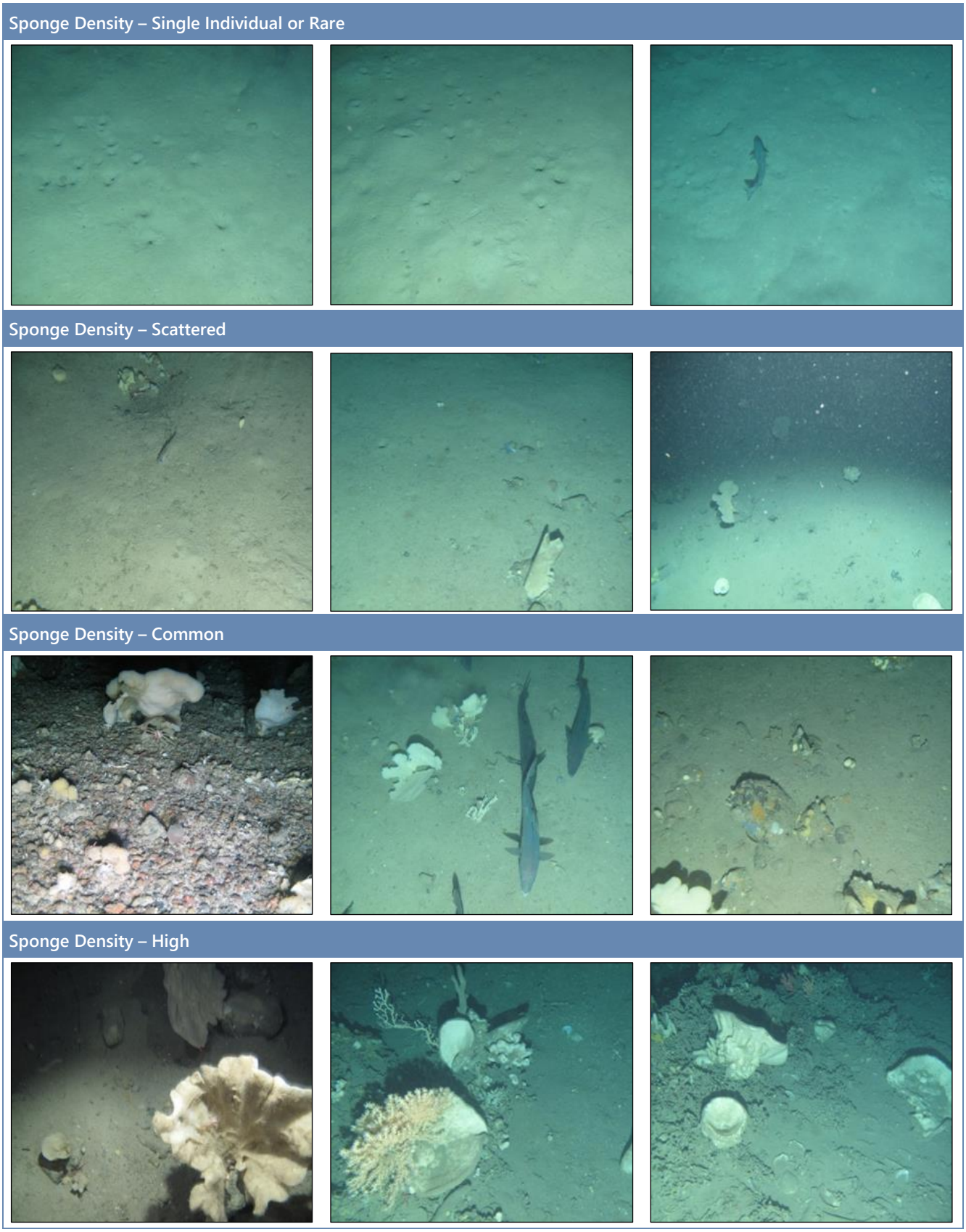
3.2.2.1 Deep-sea Sponge Aggregations

If encountered, sponge aggregations were assessed following the criteria outlined by the NEA guidelines (NEA, 2020) and DNV handbook (DNV, 2019). The method derived from the assessment criteria described by DNV (2019) and NEA (2020) aims to define the percentage cover of sponges on the seabed. These are then classified according to five categories; 'single individual' (< 1 % cover), 'rare' (< 1 % cover), 'scattered' (1 % to 5 % cover), 'common' (5 % to

10 % cover) and 'high' (> 10 % cover). Soft-bottom sponges and hard-bottom sponges are considered separately in the assessment. Table 3.5 and Figure 3.1 present further details of the categories.

Table 3.5: Sponge density assessment criteria

Sponge Habitat Category	Percentage Cover [%]	Description
Single individual	< 1	Single individual sponge
Rare	< 1	Very low density of individuals
Scattered	1 – 5	Density of individual sponges is still very low with only a few individuals being seen on seabed photography
Common	5 – 10	Higher densities of sponges with a high number of individuals being recorded from the photographic data. Often several different species are present
High	> 10	Dense areas of sponges which dominate the habitat



Notes
The images above are for illustrative purposes only and were not acquired during the current survey

Figure 3.1: Example photographs illustrating sponge cover classifications

3.2.2.2 Sea Pens and Burrowing Megafauna Communities

The semi-quantitative distribution scale recommended by DNV (2019) was used to estimate the abundance of sea pens. Table 3.6 presents further details of the categories.

Table 3.6: Sea pen assessment criteria

Sea Pen Communities Category	Number of Specimens [per 25 m^2]
Poor	< 5
Fair	5 – 10
Good	10 – 15
Excellent	> 15

OSPAR do not specify burrow density criteria for defining the habitat 'Sea pens and burrowing megafauna communities'. However, the OSPAR definition of habitat is "plains of fine mud, which are heavily bioturbated by burrowing megafauna, burrows and mounds may form a prominent feature of the sediment surface" (OSPAR, 2010b).

3.2.2.3 Red Species List

The Norwegian Red List includes species assessed against criteria that reflect the risk of the species dying out if conditions remain unchanged. Species considered vulnerable and classed as red-listed are those listed in the 'critically endangered' (CR), 'endangered' (EN) and 'vulnerable' (VU), 'near threatened '(NT) and 'data deficient' (DD) categories. Within the red-listed categories, species assessed as CR, EN and VU qualify as threatened species. Species assigned the 'least concern' (LC) category are not classified as Red List species (Henriksen & Hilmo, 2015).

The species observed within the Storjo East survey area were compared to the Norwegian Red List (NBIC, 2015) to determine the conservation status of the taxa observed.

4. Results

4.1 Field Operations

Photographic data were successfully acquired at all six proposed bow-tie transects over the Storjo East PWL and Storjo Alternative PWL.

Photographic data were also collected at five of the six additional proposed ROV transects. Transect ABP21308-TR12 coincided with the main transect running along one of the anchor corridors, which rendered it superfluous to requirements.

Table 4.1 details the photographic data acquired along each transect. Appendix B.1 provides detailed survey logs.

Table 4.1: Completed camera transects

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect		Easting	Northing	Depth [m BSL]	Length [m]*	Data Acquisition
ABP21308-TR01	SOL	434 419.0	7 298 195.1	344.7	723	Video: 54 mins 1 sec 29 stills
	EOL	434 921.4	7 298 196.3	331.4		
ABP21308-TR02	SOL	434 669.4	7 297 944.1	338.2	622	Video: 36 mins 52 sec 85 stills
	EOL	434 670.7	7 298 444.2	342.0		
ABP21308-TR03	SOL	434 921.3	7 298 196.8	329.6	387	Video: 24 mins 50 sec 44 stills
	EOL	434 667.0	7 297 942.8	339.5		
ABP21308-TR04	SOL	434 241.1	7 297 312.2	332.3	516	Video: 28 mins 42 sec 31 stills
	EOL	434 714.7	7 297 310.5	329.4		
ABP21308-TR05	SOL	434 469.1	7 297 061.8	329.5	550	Video: 30 mins 30 sec 46 stills
	EOL	434 469.6	7 297 562.5	336.7		
ABP21308-TR06	SOL	434 471.9	7 297 561.1	337.5	390	Video: 19 mins 56 sec 37 stills
	EOL	434 219.5	7 297 311.1	333.8		
ABP21308-TR07	SOL	434 386.6	7 298 604.4	334.3	433	Video: 21 mins 18 sec 34 stills
	EOL	434 377.8	7 298 364.2	332.3		
ABP21308-TR08	SOL	434 426.0	7 298 139.1	343.3	351	Video: 16 mins 48 sec 47 stills
	EOL	434 417.9	7 297 935.8	335.1		
ABP21308-TR09	SOL	434 910.1	7 298 528.6	327.6	351	Video: 15 mins 50 sec 50 stills
	EOL	435 105.9	7 298 422.5	327.1		
ABP21308-TR10	SOL	434 676.8	7 297 754.5	328.6	368	Video: 21 mins 05 sec 53 stills
	EOL	434 806.7	7 297 614.4	332.9		
ABP21308-TR11	SOL	434 142.1	7 297 467.3	341.4	330	Video: 18 mins 24 sec 93 stills
	EOL	434 140.4	7 297 229.9	339.5		

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect		Easting	Northing	Depth [m BSL]	Length [m]*	Data Acquisition
ABP21308-TR13	SOL	434 641.8	7 299 185.4	321.3	2274	Video: 2 hours 12 mins 33 sec 339 stills
	EOL	434 583.3	7 301 193.8	325.9		
ABP21308-TR14	SOL	436 437.4	7 300 629.3	327.6	2247	Video: 1 hour 55 mins 3 sec 276 stills
	EOL	435 276.2	7 298 990.7	323.6		
ABP21308-TR15	SOL	435 654.3	7 298 346.1	324.7	2335	Video: 2 hours 15 mins 30 sec 248 stills
	EOL	437 646.4	7 298 597.8	341.2		
ABP21308-TR16	SOL	435 555.8	7 297 734.2	327.6	2442	Video: 2 hours 15 mins 44 sec 320 stills
	EOL	437 336.1	7 296 817.9	330.8		
ABP21308-TR17	SOL	436 012.0	7 295 512.5	301.2	2495	Video: 2 hours 17 mins 19 sec 150 stills
	EOL	435 101.6	7 297 296.4	327.5		
ABP21308-TR18	SOL	434 343.2	7 297 251.4	330.6	2339	Video: 2 hours 4 mins 12 sec 126 stills
	EOL	433 674.5	7 295 355.0	337.8		
ABP21308-TR19	SOL	432 173.5	7 296 530.9	340.4	2113	Video: 1 hour 49 mins 52 sec 76 stills
	EOL	433 839.4	7 297 638.0	347.7		
ABP21308-TR20	SOL	433 682.2	7 298 058.6	347.9	2245	Video: 1 hour 54 mins 18 sec 105 stills
	EOL	431 695.5	7 297 793.2	344.2		
ABP21308-TR21	SOL	432 026.5	7 299 623.1	323.4	2141	Video: 1 hour 22 mins 09 sec 257 stills
	EOL	433 795.0	7 298 670.9	335.7		
ABP21308-TR22	SOL	434 236.2	7 299 094.7	330.5	2235	Video: 1 hour 37 mins 32 sec 167 stills
	EOL	433 374.7	7 300 902.3	303.7		

Notes
BSL = Below sea level
SOL = Start of line
EOL = End of line

4.2 Bathymetry and Seabed Features

There are two bathymetric highs at the northern part of the survey area, and one within the south-eastern part. The minimum water depth of 296 m is identified on the south-eastern bathymetric high, 2.9 km south-east of the PWL. The maximum water depth of 358 m is reached within an iceberg ploughmark, 1.1 km south-west of the PWL. The water depth at PWL Storjo East is 336.1 m ± 1 m. The seabed throughout the study area has been extensively shaped by iceberg ploughmarks. These have no dominant directions and are between 20 m and 130 m wide and are up to 15 m deep. PWL Storjo East is located in

between ploughmarks. The nearest ploughmark is located 17 m south-east of the PWL at nearest approach.

Multiple sonar contacts interpreted as boulders have been identified on the ABP21308 SSS data. Single patches of irregular high reflectivity with a measurable height (on sonar data) are identified as coral/possible corals, and patchy areas of irregular high reflectivity are interpreted as possible coral areas.

Sediments across the survey area generally comprised sandy mud/muddy sand with faunal burrows, mounds and tracks. Iceberg ploughmarks present in the survey area and were characterised by mixed substrate (muddy sand/sandy mud with cobbles and boulders). Coral rubble and coral framework were also present within the survey area.

Figure 4.1 displays the survey area bathymetry overlain with completed transects and seabed features.

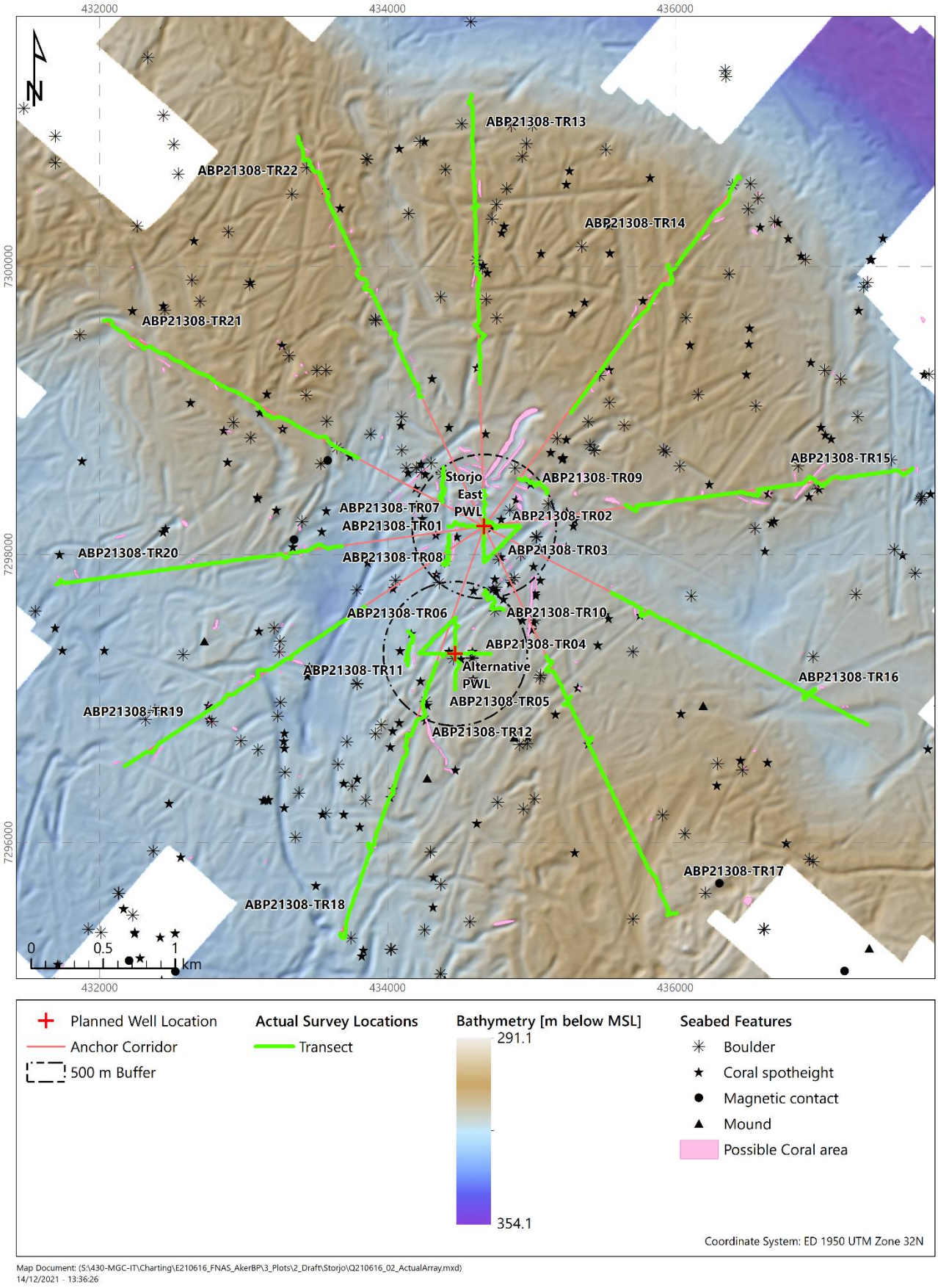


Figure 4.1: Completed transects and interpreted seabed features overlain on bathymetry data

4.3 Seabed Habitats and Fauna

Sediments across the survey area comprised sandy mud/muddy sand, with varying proportions of coarser sediments (pebbles, cobbles and boulders). This corresponded to the level 3 EUNIS habitats 'Deep-sea mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). Stony coral, *Desmophyllum pertusum* was also recorded within the survey area and reef structures (both dead and living) represented the biotope 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631).

Table 4.2 presents the classification hierarchy for the habitats observed within the survey area. Appendix B.2 provides the photographic data log.

Table 4.2: EUNIS habitat classifications

EEA (2019a) Habitat Classification				
Environment Level 1	Broad Habitat Level 2	Habitat Complex Level 3	Biotope Complex Level 4	Sub-Biotope Level 5
A Marine	A6 Deep-sea bed	A6.2 Deep-sea mixed substrata	-	-
		A6.5 Deep-sea mud	-	-
	A5 Sublittoral sediment	A5.6 Sublittoral biogenic reefs	A5.63 Circalittoral coral reefs	A5.631 Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs
Notes EUNIS = European Nature Information System				

4.3.1 Deep Circalittoral Mud (A6.5)

This level 3 EUNIS classification is reported beyond the continental shelf break, generally over 200 m, and encompasses abyssal benthic habitats with substrates predominantly of mud, with sparse epifauna (EEA, 2019b).

Areas of sandy mud/muddy sand corresponded with areas of low SSS reflectivity. These soft sediments were observed along all 21 transects surveyed.

Fauna was generally sparse within this habitat and included mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), stalked sponges (*Stylocordyla borealis*), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), anemones (Ceriantharia) and cushion stars (Valvatida including *Porania pulvillus*). Fish observed in this habitat included saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), rabbitfish (*Chimaera monstrosa*) and flatfish (Pleuronectiformes). The soft sediment was bioturbated, with faunal burrows and tracks present.

The water depth, sediment type and fauna observed corresponded with the EUNIS habitat 'Deep-sea mud'. Figure 4.2 presents example seabed photographs of this habitat.

A



B



C



D



A: Photograph

ABP21308-TR01-026

Sandy mud/muddy sand

Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

B: Photograph

ABP21308-TR05-003

Sandy mud/muddy sand

Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

C: Photograph

ABP21308-TR08-041

Sandy mud/muddy sand

Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae)

D: Photograph

ABP21308-TR10-038

Sandy mud/muddy sand

Mud-covered part buried sponges (possible Biemnidae/ Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*)

Figure 4.2: Example seabed photographs of 'Deep sea mud' (A6.5)

4.3.2 Deep-sea Mixed Substrata (A6.2)

This level 3 EUNIS classification is reported beyond the continental shelf break, in water depths generally over 200 m, and encompasses deep-sea benthic habitats with substrates predominantly of mixed particle size or gravel (EEA, 2019c).

Within the Storjo East survey area, water depths ranged between 296 m MSL and 358m MSL. Areas of sandy mud/muddy sand with varying proportions of gravel (including pebbles, cobbles and boulders) corresponded with areas of high or mottled reflectivity on the SSS. Mixed sediments were observed along all 21 transects surveyed.

Dominant fauna observed within this habitat included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*). Other fauna observed included gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobsters (Galatheoidea), green spoon worms (*Bonellia viridis*), and anemones (*Actinostola callosa*). Fish observed in this habitat included saithe (*Pollachius virens*), redfish (Sebastidae), ling (*Molva molva*) and tusk (*Brosme brosme*).

The water depth, sediment type and fauna observed corresponded with the EUNIS habitat 'Deep-sea mixed substrata'. Figure 4.3 presents example seabed photographs of this habitat.

A



B



C



D



A: Photograph

ABP21308-TR03-006

Sandy mud/muddy sand with cobbles and boulders

Sponges (Demospongiae including Axinellidae), saithe (*Pollachius virens*)

B: Photograph

ABP21308-TR06-028

Sandy mud/muddy sand with cobbles and boulders

Sponges (Demospongiae including Axinellidae) glass sponge (Hexactinellida), saithe (*Pollachius virens*)

C: Photograph

ABP21308-TR10-039

Sandy mud/muddy sand with cobbles and boulders

Sponges (Demospongiae including Axinellidae), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae)

D: Photograph

ABP21308-TR11-090

Sandy mud/muddy sand with cobbles and boulders

Sponges (Demospongiae including Axinellidae), redfish (Sebastidae), saithe (*Pollachius virens*)

Figure 4.3: Example seabed photographs of 'Deep sea mixed substrata' (A6.2)

4.3.3 Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) Reefs (A5.631)

This level 5 EUNIS classification is defined by the presence of *Desmophyllum pertusum* (previously *Lophelia pertusa*). The coral provides a three-dimensional structure that acts as a shelter and a surface for attachment for other species including sponges, anemones, bryozoans, gorgonian corals, polychaetes, barnacles, squat lobsters, bivalves, redfish, ling and torsk (EEA, 2019d).

Areas of *D. pertusum* corresponded with areas of mottled SSS reflectivity particularly on the flanks of iceberg ploughmarks. This biotope was observed along all 21 transects in mostly small stretches. Although not all *D. pertusum* structures in the survey area were living, the presence of the biogenic structure (living or dead) altered the fauna communities present and represented the associated fauna described by the EEA (2019d).

Fauna were diverse in comparison to the surrounding soft sediments. Fauna associated with *D. pertusum* included sponges (Porifera including *Geodia* sp., Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*), file shells (*Acesta excavata*), anemones (Actiniaria including *Actinostola callosa*) and green spoon worms (*Bonellia viridis*). Associated mobile fauna included squat lobsters (Galatheoidea including *Munida* sp.), redfish (Sebastidae), ling (*Molva molva*) and tusk (*Brosme brosme*).

Figure 4.4 presents example seabed photographs of this habitat.

A



B



A: Photograph

ABP21308-TR04-017

Coral framework

Sponges (Demospongiae including Axinellidae), gorgonian corals (*Paragorgia arborea*), file shells (*Acesta excavata*), redfish (Sebastidae)

B: Photograph

ABP21308-TR06-014

Coral framework

Sponges (Demospongiae including Axinellidae), gorgonian corals (*Paragorgia arborea*), file shells (*Acesta excavata*), anemone (Actinostolidae)

C



D



C: Photograph

ABP21308-TR09-018

Coral framework

Sponges (Demospongiae including Axinellidae), gorgonian corals (*Paragorgia arborea*), coral (*Desmophyllum pertusum*), saithe (*Pollachius virens*)

D: Photograph

ABP21308-TR11-023

Coral framework

Coral (*Desmophyllum pertusum*), redfish (Sebastidae) file shells (*Acesta excavata*)

Figure 4.4: Example seabed photographs of 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631)

4.4 Potential Sensitive Habitats and Species

4.4.1 *Desmophyllum pertusum* Reef

4.4.1.1 Within 500 m of the Planned Well Locations

Dead coral framework and coral rubble was observed within 500 m of the PWLs.

Living *Desmophyllum pertusum* was observed at a number of locations, although with a low percentage cover and total living front area. Therefore these areas were classified as 'dead'.

At three locations, *D. pertusum* reef was observed and classified as 'poor', 'fair' or 'good'. Table 4.3 presents location of the *D. pertusum* reef in relation to the PWLs. Figures 4.5 and 4.6 present the spatial distribution of *D. pertusum* along with the overall reef condition within 500 m of the PWLs.

Table 4.3: Summary of *Desmophyllum pertusum* coral condition within 500 m of the PWL

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall *Desmophyllum pertusum* Coral Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
Storjo East PWL					
ABP21308-TR11	Good	434 168	7 297 418	925	213
ABP21308-TR11	Fair	434 136	7 297 281	1058	213
ABP21308-TR09	Poor	434 987	7 298 497	439	46
Storjo Alternative PWL					
ABP21308-TR11	Good	434 168	7 297 418	319	289
ABP21308-TR11	Fair	434 136	7 297 281	334	265
ABP21308-TR09	Poor	434 987	7 298 497	1293	24

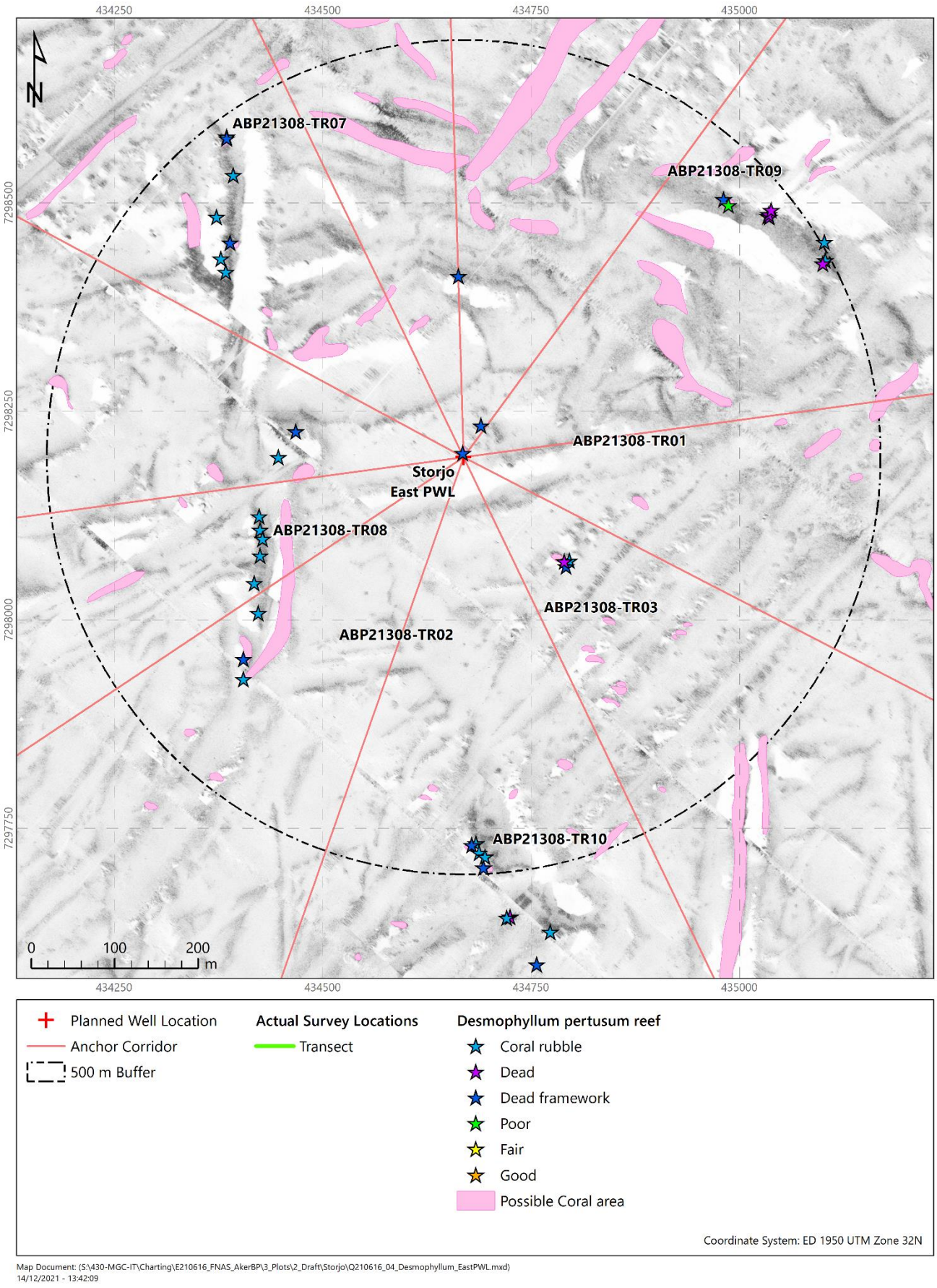


Figure 4.5: Spatial distribution of *Desmophyllum pertusum* reef, Storjo East PWL

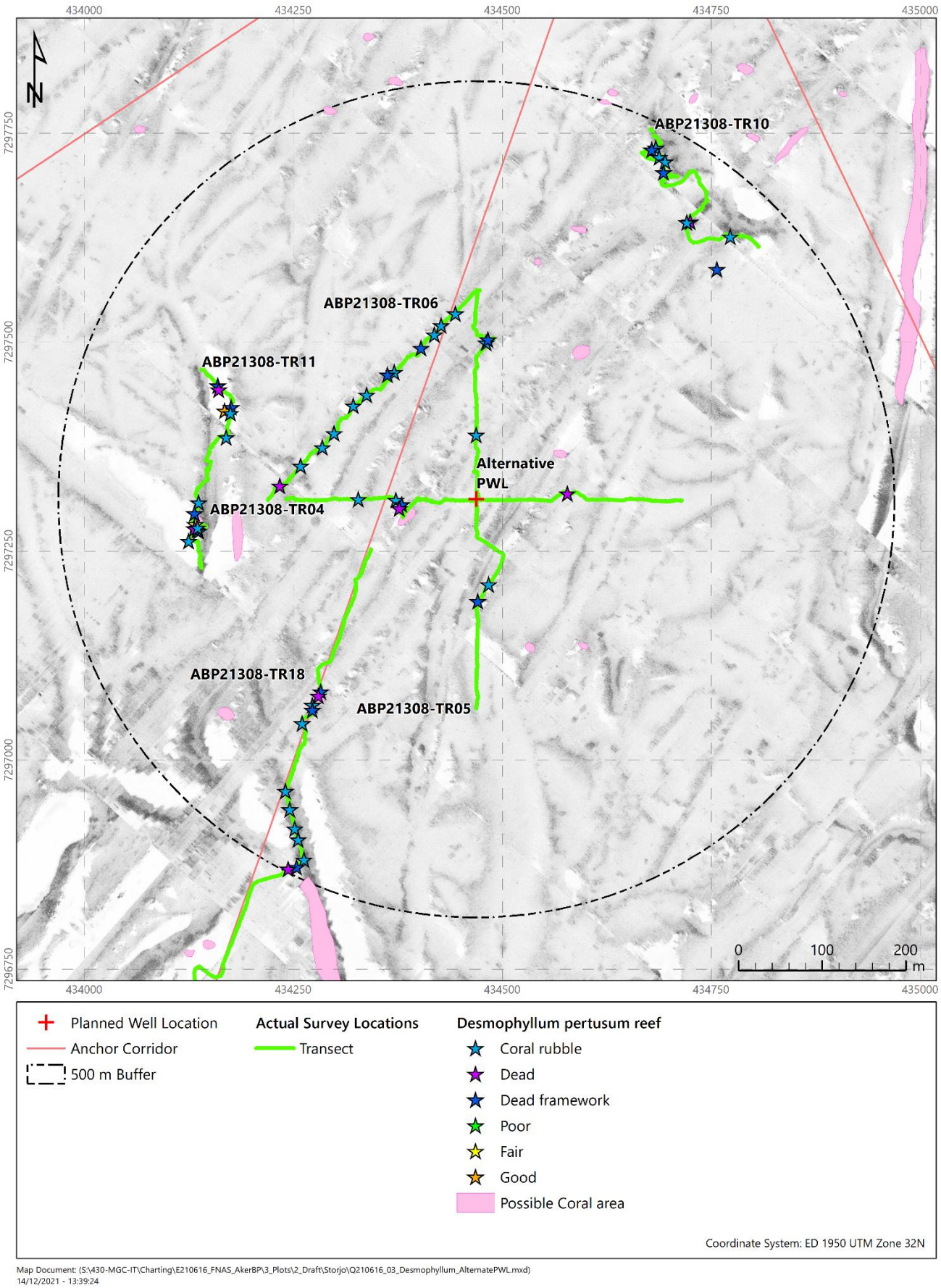


Figure 4.6: Spatial distribution of *Desmophyllum pertusum* reef, Storjo Alternative PWL

4.4.1.2 Along the Anchor Corridors

Dead coral framework and coral rubble was observed along the anchor corridors.

Living *D. pertusum* was observed at a number of locations, although with a low percentage cover and total living front area. Therefore these areas were classified as 'dead'.

At nine locations, *D. pertusum* reef was observed and classified as 'poor' or 'fair'.

Table 4.4 presents a summary of these locations. Figures 4.7 and 4.8 present the spatial distribution of *D. pertusum* within the survey area.

Table 4.4: Summary of *Desmophyllum pertusum* coral condition within the anchor corridors

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]				
Overall *Desmophyllum pertusum* Coral Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
Anchor Corridor 1				
Fair	434 603	7 299 590	1397	357
Anchor Corridor 2				
Poor	435 973	7 299 909	2154	37
Poor	435 969	7 299 904	2147	37
Anchor Corridor 4				
Poor	436 939	7 297 047	2544	117
Poor	436 943	7 297 052	2545	117
Anchor Corridor 5				
Fair	435 392	7 296 684	1675	154
Anchor Corridor 6				
Poor	433 904	7 295 986	2338	199
Anchor Corridor 7				
Poor	433 325	7 297 275	1629	236
Anchor Corridor 9				
Poor	433 161	7 298 967	1694	297

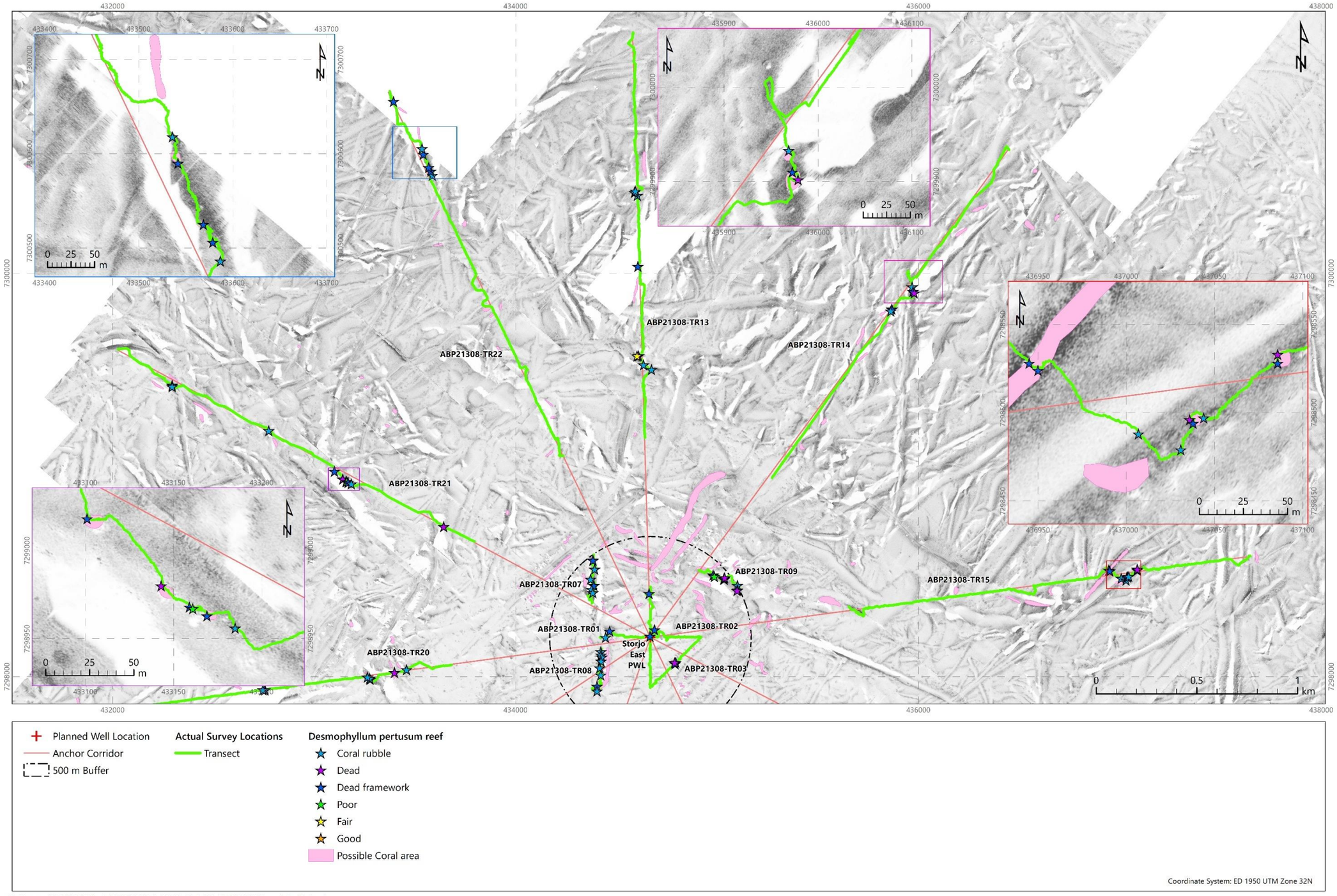


Figure 4.7: Spatial distribution of *Desmophyllum pertusum* reef, Northern part of the survey area

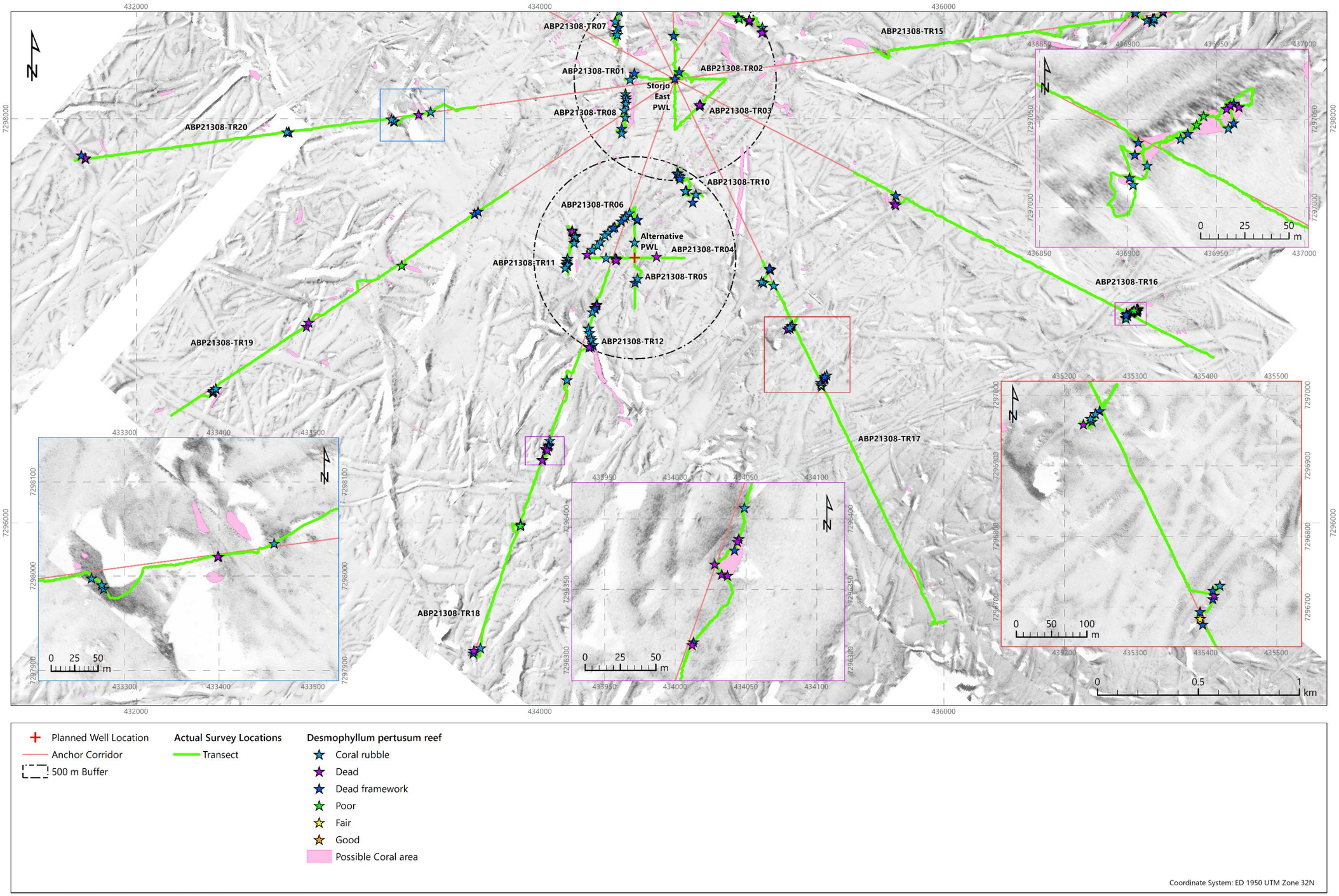


Figure 4.8: Spatial distribution of *Desmophyllum pertusum* reef, Southern part of the survey area

4.4.2 Hard-bottom Coral Gardens

4.4.2.1 Within 500 m of the Planned Well Locations

Two hard-bottom coral garden species *Paragorgia arborea* and *Primnoa resedaediformis* were recorded within 500 m of the PWLs. The majority of the records were classified as 'single *Paragorgia* on boulder' (1 coral colony per 25 m^2) or 'poor' (< 5 coral colonies per 25 m^2).

Three areas were classified as 'excellent' (> 15 coral colonies per 25 m^2), five areas were classified as 'good' (10 to 15 coral colonies per 25 m^2), and twenty-one areas were classified as 'fair' (5 to 10 coral colonies per 25 m^2). Table 4.5 presents the location of the hard-bottom coral gardens in relation to the PWLs. Figures 4.9 and 4.10 present the spatial distribution of hard-bottom coral gardens within 500 m of the PWLs.

The hard-bottom coral garden species *Paragorgia arborea* and *Primnoa resedaediformis*, were associated with hard substrate (areas of high reflectivity). Throughout the site, areas of high reflectivity were observed, therefore there is potential for coral garden species to be present on any areas of hard substrate throughout the survey area.

Table 4.5: Summary of hard-bottom gorgonian coral condition within 500 m of the PWL

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
Storjo East PWL					
ABP21308-TR01	Single *Paragorgia* on boulder	434 468	7 298 226	203	279
ABP21308-TR02	Poor	434 678	7 298 342	147	4
ABP21308-TR02	Fair	434 659	7 298 412	217	357
ABP21308-TR02	Fair	434 654	7 298 405	211	356
ABP21308-TR03	Single *Paragorgia* on boulder	434 849	7 298 125	193	111
ABP21308-TR03	Fair	434 791	7 298 063	180	137
ABP21308-TR04	Poor	434 378	7 297 297	944	198
ABP21308-TR04	Fair	434 380	7 297 292	948	198
ABP21308-TR04	Good	434 376	7 297 283	958	198
ABP21308-TR04	Poor	434 386	7 297 299	940	198
ABP21308-TR04	Fair	434 388	7 297 296	942	197
ABP21308-TR04	Fair	434 578	7 297 319	881	186
ABP21308-TR05	Poor	434 468	7 297 179	1036	191
ABP21308-TR05	Single *Paragorgia* on boulder	434 471	7 297 184	1030	191
ABP21308-TR05	Single *Paragorgia* on boulder	434 471	7 297 187	1027	191

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR05	Fair	434 471	7 297 190	1024	191
ABP21308-TR05	Single *Paragorgia* on boulder	434 475	7 297 194	1020	191
ABP21308-TR05	Single *Paragorgia* on boulder	434 476	7 297 197	1016	191
ABP21308-TR05	Poor	434 500	7 297 241	969	190
ABP21308-TR05	Single *Paragorgia* on boulder	434 481	7 297 499	721	195
ABP21308-TR05	Fair	434 483	7 297 503	717	195
ABP21308-TR06	Single *Paragorgia* on boulder	434 426	7 297 519	718	200
ABP21308-TR06	Fair	434 403	7 297 493	751	201
ABP21308-TR06	Single *Paragorgia* on boulder	434 363	7 297 461	795	203
ABP21308-TR06	Poor	434 338	7 297 437	827	204
ABP21308-TR06	Single *Paragorgia* on boulder	434 321	7 297 423	847	204
ABP21308-TR06	Good	434 234	7 297 328	970	207
ABP21308-TR07	Fair	434 385	7 298 577	476	323
ABP21308-TR07	Fair	434 384	7 298 571	472	323
ABP21308-TR07	Poor	434 381	7 298 568	471	322
ABP21308-TR07	Single *Paragorgia* on boulder	434 379	7 298 555	462	321
ABP21308-TR07	Poor	434 390	7 298 547	449	322
ABP21308-TR07	Poor	434 394	7 298 539	440	321
ABP21308-TR07	Single *Paragorgia* on boulder	434 382	7 298 519	433	318
ABP21308-TR07	Single *Paragorgia* on boulder	434 375	7 298 484	412	315
ABP21308-TR07	Poor	434 372	7 298 482	413	314
ABP21308-TR07	Single *Paragorgia* on boulder	434 387	7 298 466	391	314
ABP21308-TR07	Single *Paragorgia* on boulder	434 389	7 298 466	390	314
ABP21308-TR07	Poor	434 389	7 298 452	380	313
ABP21308-TR07	Single *Paragorgia* on boulder	434 389	7 298 452	380	313
ABP21308-TR07	Excellent	434 390	7 298 452	379	313

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR07	Good	434 393	7 298 447	374	312
ABP21308-TR07	Single *Paragorgia* on boulder	434 378	7 298 430	374	309
ABP21308-TR07	Poor	434 372	7 298 399	360	304
ABP21308-TR07	Single *Paragorgia* on boulder	434 373	7 298 383	351	302
ABP21308-TR07	Single *Paragorgia* on boulder	434 365	7 298 381	356	301
ABP21308-TR07	Fair	434 390	7 298 423	360	309
ABP21308-TR07	Single *Paragorgia* on boulder	434 393	7 298 423	358	310
ABP21308-TR07	Poor	434 390	7 298 426	362	310
ABP21308-TR07	Single *Paragorgia* on boulder	434 375	7 298 382	348	302
ABP21308-TR07	Single *Paragorgia* on boulder	434 380	7 298 374	340	302
ABP21308-TR07	Poor	434 381	7 298 367	335	301
ABP21308-TR08	Single *Paragorgia* on boulder	434 420	7 298 118	261	253
ABP21308-TR08	Poor	434 425	7 298 066	276	242
ABP21308-TR08	Poor	434 425	7 298 020	300	234
ABP21308-TR08	Single *Paragorgia* on boulder	434 425	7 298 017	302	234
ABP21308-TR08	Single *Paragorgia* on boulder	434 423	7 298 005	311	232
ABP21308-TR08	Fair	434 405	7 297 953	358	227
ABP21308-TR08	Single *Paragorgia* on boulder	434 401	7 297 956	359	228
ABP21308-TR08	Single *Paragorgia* on boulder	434 398	7 297 956	361	229
ABP21308-TR09	Single *Paragorgia* on boulder	434 974	7 298 512	440	44
ABP21308-TR09	Fair	434 981	7 298 504	439	45
ABP21308-TR09	Single *Paragorgia* on boulder	434 984	7 298 499	438	46
ABP21308-TR09	Fair	434 987	7 298 497	439	46
ABP21308-TR09	Single *Paragorgia* on boulder	435 016	7 298 490	455	50

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR09	Single *Paragorgia* on boulder	435 017	7 298 487	454	50
ABP21308-TR09	Excellent	435 034	7 298 484	466	52
ABP21308-TR09	Single *Paragorgia* on boulder	435 102	7 298 454	505	59
ABP21308-TR09	Single *Paragorgia* on boulder	435 101	7 298 451	502	59
ABP21308-TR09	Fair	435 100	7 298 427	489	62
ABP21308-TR09	Single *Paragorgia* on boulder	435 100	7 298 425	489	62
ABP21308-TR09	Single *Paragorgia* on boulder	435 106	7 298 424	493	62
ABP21308-TR10	Good	434 674	7 297 727	468	179
ABP21308-TR10	Single *Paragorgia* on boulder	434 691	7 297 705	490	177
ABP21308-TR10	Fair (total area of coral garden was less than 25m^2)	434 700	7 297 701	495	176
ABP21308-TR10	Single *Paragorgia* on boulder	434 744	7 297 669	531	172
ABP21308-TR10	Poor	434 725	7 297 651	547	174
ABP21308-TR10	Fair (total area of coral garden was less than 25m^2)	434 722	7 297 642	556	175
ABP21308-TR10	Single *Paragorgia* on boulder	434 738	7 297 620	579	173
ABP21308-TR10	Fair	434 773	7 297 626	578	170
ABP21308-TR11	Fair (total area of coral garden was less than 25m^2)	434 165	7 297 440	908	214
ABP21308-TR11	Single *Paragorgia* on boulder	434 175	7 297 433	908	213
ABP21308-TR11	Fair	434 168	7 297 418	925	213
ABP21308-TR11	Single *Paragorgia* on boulder	434 172	7 297 404	934	212
ABP21308-TR11	Fair	434 138	7 297 281	1057	210
ABP21308-TR11	Good (total area of coral garden was less than 25m^2)	434 130	7 297 274	1067	210
ABP21308-TR11	Poor	434 130	7 297 262	1078	210

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR11	Poor	434 136	7 297 260	1076	210
ABP21308-TR11	Single *Paragorgia* on boulder	434 136	7 297 253	1082	210
ABP21308-TR18	Single *Paragorgia* on boulder	434 280	7 297 110	1153	200
ABP21308-TR18	Poor	434 280	7 297 077	1184	199
ABP21308-TR18	Poor	434 273	7 297 066	1196	199
ABP21308-TR18	Fair	434 273	7 297 060	1202	199
ABP21308-TR18	Single *Paragorgia* on boulder	434 264	7 297 051	1214	199
ABP21308-TR18	Single *Paragorgia* on boulder	434 261	7 297 049	1216	200
ABP21308-TR18	Single *Paragorgia* on boulder	434 251	7 296 925	1337	198
ABP21308-TR18	Single *Paragorgia* on boulder	434 259	7 296 891	1367	197
ABP21308-TR18	Single *Paragorgia* on boulder	434 260	7 296 888	1369	197
ABP21308-TR18	Excellent	434 254	7 296 872	1387	197
Storjo Alternative PWL					
ABP21308-TR01	Single *Paragorgia* on boulder	434 468	7 298 226	914	360
ABP21308-TR02	Poor	434 678	7 298 342	1051	11
ABP21308-TR02	Fair	434 659	7 298 412	1116	10
ABP21308-TR02	Fair	434 654	7 298 405	1109	10
ABP21308-TR03	Single *Paragorgia* on boulder	434 849	7 298 125	897	25
ABP21308-TR03	Fair	434 791	7 298 063	817	23
ABP21308-TR04	Poor	434 378	7 297 297	92	261
ABP21308-TR04	Fair	434 380	7 297 292	91	257
ABP21308-TR04	Good	434 376	7 297 283	97	253
ABP21308-TR04	Poor	434 386	7 297 299	84	261
ABP21308-TR04	Fair	434 388	7 297 296	83	259
ABP21308-TR04	Fair	434 578	7 297 319	109	86
ABP21308-TR05	Poor	434 468	7 297 179	133	180
ABP21308-TR05	Single *Paragorgia* on boulder	434 471	7 297 184	128	179

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR05	Single *Paragorgia* on boulder	434 471	7 297 187	125	179
ABP21308-TR05	Fair	434 471	7 297 190	122	179
ABP21308-TR05	Single *Paragorgia* on boulder	434 475	7 297 194	118	177
ABP21308-TR05	Single *Paragorgia* on boulder	434 476	7 297 197	115	177
ABP21308-TR05	Poor	434 500	7 297 241	77	156
ABP21308-TR05	Single *Paragorgia* on boulder	434 481	7 297 499	187	4
ABP21308-TR05	Fair	434 483	7 297 503	192	4
ABP21308-TR06	Single *Paragorgia* on boulder	434 426	7 297 519	211	348
ABP21308-TR06	Fair	434 403	7 297 493	193	340
ABP21308-TR06	Single *Paragorgia* on boulder	434 363	7 297 461	183	325
ABP21308-TR06	Poor	434 338	7 297 437	181	314
ABP21308-TR06	Single *Paragorgia* on boulder	434 321	7 297 423	185	307
ABP21308-TR06	Good	434 234	7 297 328	236	274
ABP21308-TR07	Fair	434 385	7 298 577	1268	356
ABP21308-TR07	Fair	434 384	7 298 571	1262	356
ABP21308-TR07	Poor	434 381	7 298 568	1259	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 379	7 298 555	1246	356
ABP21308-TR07	Poor	434 390	7 298 547	1238	356
ABP21308-TR07	Poor	434 394	7 298 539	1229	357
ABP21308-TR07	Single *Paragorgia* on boulder	434 382	7 298 519	1210	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 375	7 298 484	1176	355
ABP21308-TR07	Poor	434 372	7 298 482	1174	355
ABP21308-TR07	Single *Paragorgia* on boulder	434 387	7 298 466	1157	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 389	7 298 466	1157	356
ABP21308-TR07	Poor	434 389	7 298 452	1143	356

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR07	Single *Paragorgia* on boulder	434 389	7 298 452	1143	356
ABP21308-TR07	Excellent	434 390	7 298 452	1143	356
ABP21308-TR07	Good	434 393	7 298 447	1138	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 378	7 298 430	1122	355
ABP21308-TR07	Poor	434 372	7 298 399	1091	355
ABP21308-TR07	Single *Paragorgia* on boulder	434 373	7 298 383	1075	355
ABP21308-TR07	Single *Paragorgia* on boulder	434 365	7 298 381	1074	354
ABP21308-TR07	Fair	434 390	7 298 423	1114	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 393	7 298 423	1114	356
ABP21308-TR07	Poor	434 390	7 298 426	1117	356
ABP21308-TR07	Single *Paragorgia* on boulder	434 375	7 298 382	1074	355
ABP21308-TR07	Single *Paragorgia* on boulder	434 380	7 298 374	1066	355
ABP21308-TR07	Poor	434 381	7 298 367	1059	355
ABP21308-TR08	Single *Paragorgia* on boulder	434 420	7 298 118	807	357
ABP21308-TR08	Poor	434 425	7 298 066	755	357
ABP21308-TR08	Poor	434 425	7 298 020	709	356
ABP21308-TR08	Single *Paragorgia* on boulder	434 425	7 298 017	706	356
ABP21308-TR08	Single *Paragorgia* on boulder	434 423	7 298 005	695	356
ABP21308-TR08	Fair	434 405	7 297 953	644	354
ABP21308-TR08	Single *Paragorgia* on boulder	434 401	7 297 956	648	354
ABP21308-TR08	Single *Paragorgia* on boulder	434 398	7 297 956	648	354
ABP21308-TR09	Single *Paragorgia* on boulder	434 974	7 298 512	1302	23
ABP21308-TR09	Fair	434 981	7 298 504	1297	23
ABP21308-TR09	Single *Paragorgia* on boulder	434 984	7 298 499	1294	23
ABP21308-TR09	Fair	434 987	7 298 497	1293	24

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR09	Single *Paragorgia* on boulder	435 016	7 298 490	1299	25
ABP21308-TR09	Single *Paragorgia* on boulder	435 017	7 298 487	1297	25
ABP21308-TR09	Excellent	435 034	7 298 484	1301	26
ABP21308-TR09	Single *Paragorgia* on boulder	435 102	7 298 454	1306	29
ABP21308-TR09	Single *Paragorgia* on boulder	435 101	7 298 451	1303	29
ABP21308-TR09	Fair	435 100	7 298 427	1281	30
ABP21308-TR09	Single *Paragorgia* on boulder	435 100	7 298 425	1279	30
ABP21308-TR09	Single *Paragorgia* on boulder	435 106	7 298 424	1282	30
ABP21308-TR10	Good	434 674	7 297 727	463	26
ABP21308-TR10	Single *Paragorgia* on boulder	434 691	7 297 705	451	29
ABP21308-TR10	Fair (total area of coral garden was less than 25m^2)	434 700	7 297 701	452	31
ABP21308-TR10	Single *Paragorgia* on boulder	434 744	7 297 669	451	38
ABP21308-TR10	Poor	434 725	7 297 651	425	37
ABP21308-TR10	Fair (total area of coral garden was less than 25m^2)	434 722	7 297 642	416	37
ABP21308-TR10	Single *Paragorgia* on boulder	434 738	7 297 620	409	41
ABP21308-TR10	Fair	434 773	7 297 626	437	44
ABP21308-TR11	Fair (total area of coral garden was less than 25m^2)	434 165	7 297 440	330	293
ABP21308-TR11	Single *Paragorgia* on boulder	434 175	7 297 433	318	292
ABP21308-TR11	Fair	434 168	7 297 418	319	289
ABP21308-TR11	Single *Paragorgia* on boulder	434 172	7 297 404	311	287
ABP21308-TR11	Fair	434 138	7 297 281	332	265
ABP21308-TR11	Good (total area of coral garden was less than 25m^2)	434 130	7 297 274	341	264

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]	Bearing from PWL [°]
ABP21308-TR11	Poor	434 130	7 297 262	343	262
ABP21308-TR11	Poor	434 136	7 297 260	337	261
ABP21308-TR11	Single *Paragorgia* on boulder	434 136	7 297 253	338	260
ABP21308-TR18	Single *Paragorgia* on boulder	434 280	7 297 110	277	223
ABP21308-TR18	Poor	434 280	7 297 077	302	219
ABP21308-TR18	Poor	434 273	7 297 066	315	219
ABP21308-TR18	Fair	434 273	7 297 060	319	218
ABP21308-TR18	Single *Paragorgia* on boulder	434 264	7 297 051	332	218
ABP21308-TR18	Single *Paragorgia* on boulder	434 261	7 297 049	335	218
ABP21308-TR18	Single *Paragorgia* on boulder	434 251	7 296 925	444	209
ABP21308-TR18	Single *Paragorgia* on boulder	434 259	7 296 891	470	207
ABP21308-TR18	Single *Paragorgia* on boulder	434 260	7 296 888	473	206
ABP21308-TR18	Excellent	434 254	7 296 872	490	206

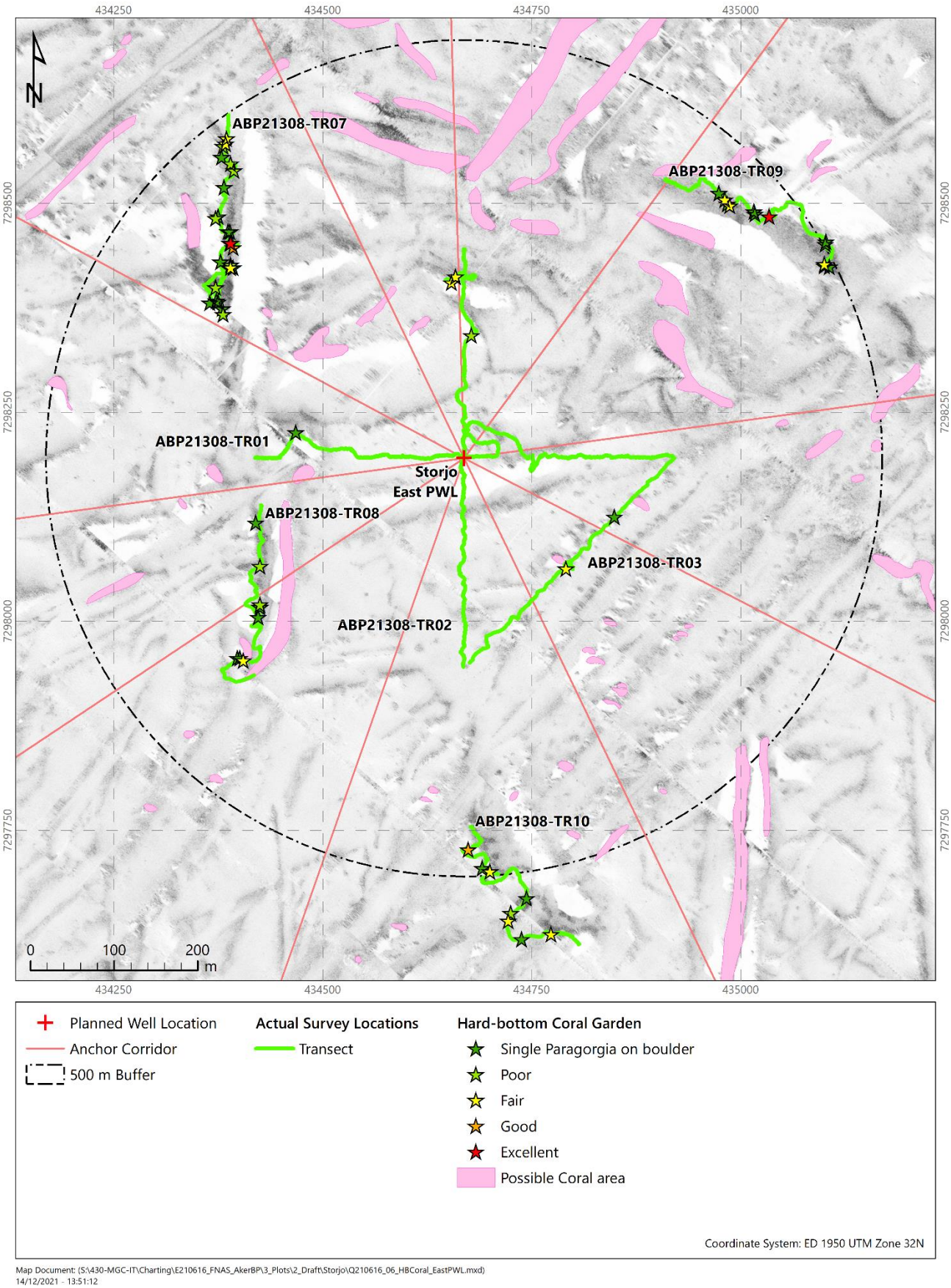


Figure 4.9: Spatial distribution of hard-bottom coral gardens, Storjo East PWL

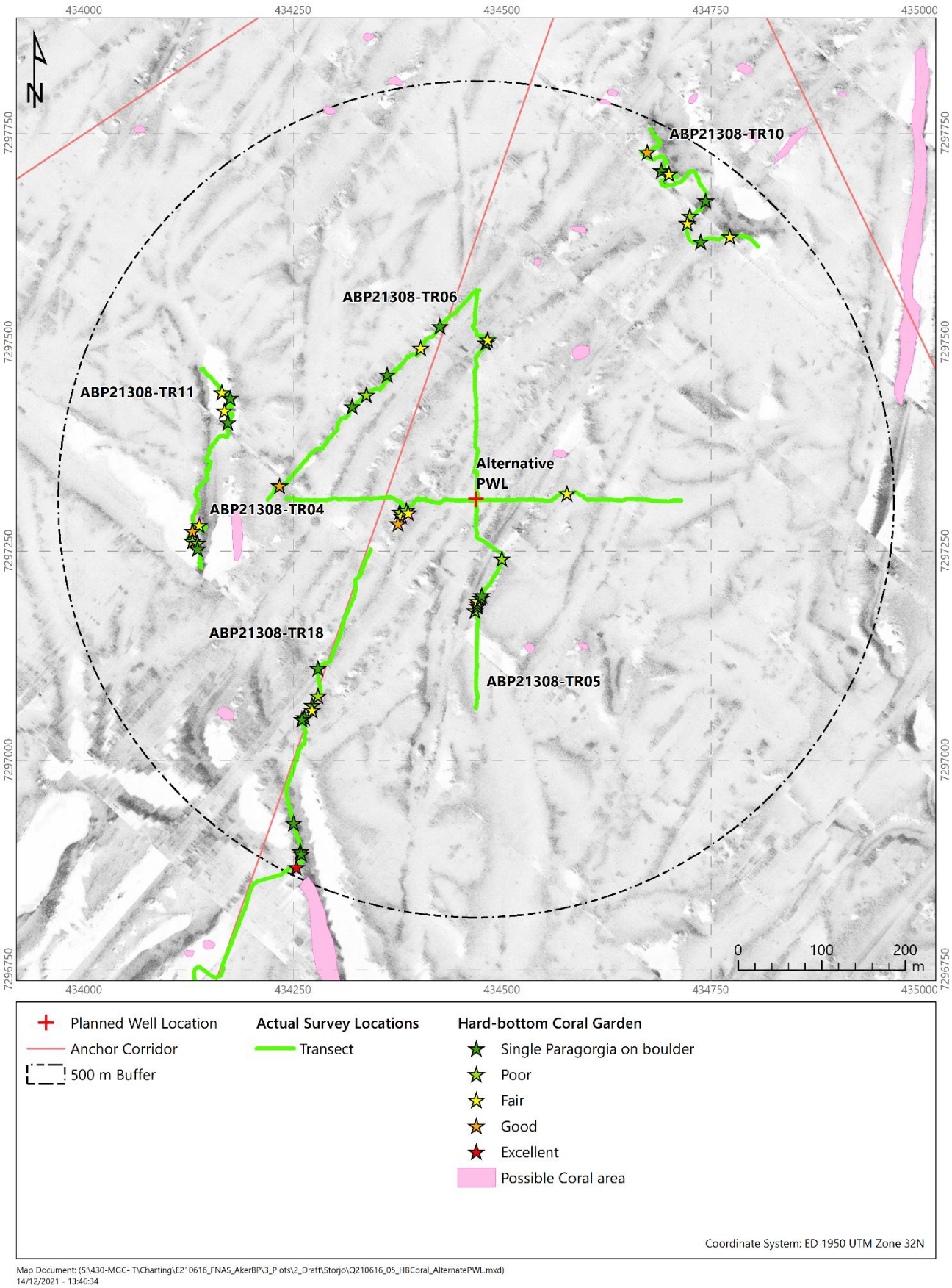


Figure 4.10: Spatial distribution of hard-bottom coral gardens, Storjo Alternative PWL

4.4.2.2 Along the Anchor Corridors

Three hard-bottom coral garden species *Paragorgia arborea*, *Primnoa resedaediformis* and possible *Anthothela grandiflora* were recorded along the anchor corridors. The majority of the records were classified as 'single *Paragorgia* on boulder' (1 coral colony per 25 m^2) or 'poor' (< 5 coral colonies per 25 m^2).

Nine areas were classified as 'excellent' (> 15 coral colonies per 25 m^2), ten areas were classified as 'good' (10 to 15 coral colonies per 25 m^2), and twenty-eight areas were classified as 'fair' (5 to 10 coral colonies per 25 m^2). Table 4.6 presents the location of the hard-bottom coral gardens in relation to the anchor corridors. Figures 4.11 and 4.12 present the spatial distribution of hard-bottom coral gardens within the survey area.

The hard-bottom coral garden species *Paragorgia arborea* and *Primnoa resedaediformis*, were associated with hard substrate (areas of high reflectivity). Throughout the site, areas of high reflectivity were observed, therefore there is potential for coral garden species to be present on any areas of hard substrate throughout the survey area.

Table 4.6: Summary of hard-bottom gorgonian coral condition within the anchor corridors

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
Anchor Corridor 1					
ABP21308-TR13	Single *Paragorgia* on boulder	434 644	7 299 361	1166	359
ABP21308-TR13	Single *Paragorgia* on boulder	434 639	7 299 484	1289	359
ABP21308-TR13	Single *Paragorgia* on boulder	434 671	7 299 523	1328	0
ABP21308-TR13	Fair	434 603	7 299 590	1397	357
ABP21308-TR13	Single *Paragorgia* on boulder	434 620	7 299 598	1404	358
ABP21308-TR13	Single *Paragorgia* on boulder	434 638	7 299 911	1716	359
ABP21308-TR13	Fair	434 608	7 300 034	1840	358
ABP21308-TR13	Single *Paragorgia* on boulder	434 589	7 300 838	2644	358
ABP21308-TR13	Single *Paragorgia* on boulder	434 579	7 301 165	2971	358
Anchor Corridor 2					
ABP21308-TR14	Single *Paragorgia* on boulder	436 425	7 300 608	2984	36
ABP21308-TR14	Single *Paragorgia* on boulder	436 394	7 300 551	2920	36

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR14	Poor	436 392	7 300 542	2912	36
ABP21308-TR14	Single *Paragorgia* on boulder	436 068	7 300 093	2358	36
ABP21308-TR14	Single *Paragorgia* on boulder	436 000	7 299 996	2239	36
ABP21308-TR14	Single *Paragorgia* on boulder	435 963	7 299 970	2197	36
ABP21308-TR14	Single *Paragorgia* on boulder	435 944	7 300 002	2212	35
ABP21308-TR14	Single *Paragorgia* on boulder	435 948	7 300 009	2220	35
ABP21308-TR14	Single *Paragorgia* on boulder	435 957	7 299 974	2196	36
ABP21308-TR14	Poor	435 972	7 299 931	2171	37
ABP21308-TR14	Excellent	435 972	7 299 902	2147	37
ABP21308-TR14	Single *Paragorgia* on boulder	435 966	7 299 878	2125	38
ABP21308-TR14	Single *Paragorgia* on boulder	435 961	7 299 878	2122	38
ABP21308-TR14	Single *Paragorgia* on boulder	435 871	7 299 825	2025	36
ABP21308-TR14	Poor	435 868	7 299 822	2021	36
ABP21308-TR14	Single *Paragorgia* on boulder	435 809	7 299 708	1894	37
ABP21308-TR14	Single *Paragorgia* on boulder	435 628	7 299 485	1607	37
ABP21308-TR14	Single *Paragorgia* on boulder	435 386	7 299 147	1192	37
Anchor Corridor 3					
ABP21308-TR15	Poor	435 701	7 298 319	1039	83
ABP21308-TR15	Poor	436 457	7 298 431	1804	82
ABP21308-TR15	Single *Paragorgia* on boulder	436 478	7 298 426	1824	83
ABP21308-TR15	Single *Paragorgia* on boulder	436 547	7 298 411	1890	83
ABP21308-TR15	Single *Paragorgia* on boulder	436 573	7 298 410	1916	84
ABP21308-TR15	Poor	436 945	7 298 528	2300	82
ABP21308-TR15	Excellent	436 952	7 298 528	2307	82

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR15	Single *Paragorgia* on boulder	437 011	7 298 484	2360	83
ABP21308-TR15	Fair	437 013	7 298 480	2361	83
ABP21308-TR15	Single *Paragorgia* on boulder	437 018	7 298 474	2366	83
ABP21308-TR15	Single *Paragorgia* on boulder	437 021	7 298 473	2368	83
ABP21308-TR15	Single *Paragorgia* on boulder	437 031	7 298 481	2379	83
ABP21308-TR15	Poor	437 037	7 298 492	2387	83
ABP21308-TR15	Poor	437 036	7 298 496	2386	83
ABP21308-TR15	Poor	437 050	7 298 497	2400	83
ABP21308-TR15	Good	437 086	7 298 533	2441	82
ABP21308-TR15	Poor	437 091	7 298 535	2446	82
ABP21308-TR15	Single *Paragorgia* on boulder	437 615	7 298 576	2971	83
Anchor Corridor 4					
ABP21308-TR16	Poor	435 763	7 297 621	1235	118
ABP21308-TR16	Fair	435 754	7 297 579	1248	120
ABP21308-TR16	Fair	435 757	7 297 586	1247	119
ABP21308-TR16	Fair	435 754	7 297 578	1248	120
ABP21308-TR16	Fair	435 757	7 297 576	1252	120
ABP21308-TR16	Single *Paragorgia* on boulder	435 900	7 297 551	1389	118
ABP21308-TR16	Good	436 906	7 297 037	2519	117
ABP21308-TR16	Single *Paragorgia* on boulder	436 905	7 297 017	2527	118
ABP21308-TR16	Poor	436 899	7 297 018	2522	118
ABP21308-TR16	Single *Paragorgia* on boulder	436 889	7 297 002	2520	118
ABP21308-TR16	Single *Paragorgia* on boulder	436 903	7 297 013	2527	118
ABP21308-TR16	Excellent	436 928	7 297 038	2538	117
ABP21308-TR16	Good	436 937	7 297 044	2543	117
ABP21308-TR16	Fair	436 941	7 297 049	2545	117
ABP21308-TR16	Excellent	436 950	7 297 050	2552	117
ABP21308-TR16	Fair	436 959	7 297 050	2560	117

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR16	Poor	436 956	7 297 056	2555	116
ABP21308-TR16	Fair	436 964	7 297 057	2562	116
ABP21308-TR16	Poor	436 958	7 297 057	2556	116
ABP21308-TR16	Good	436 951	7 297 052	2552	117
ABP21308-TR16	Fair	436 941	7 297 051	2544	117
ABP21308-TR16	Poor	436 936	7 297 044	2542	117
ABP21308-TR16	Fair	436 928	7 297 042	2536	117
ABP21308-TR16	Poor	436 918	7 297 036	2530	117
ABP21308-TR16	Poor	436 923	7 297 031	2537	117
Anchor Corridor 5					
ABP21308-TR17	Single *Paragorgia* on boulder	435 634	7 296 188	2227	154
ABP21308-TR17	Good	435 394	7 296 680	1680	154
ABP21308-TR17	Poor	435 392	7 296 694	1666	154
ABP21308-TR17	Poor	435 410	7 296 712	1658	153
ABP21308-TR17	Fair	435 412	7 296 716	1655	153
ABP21308-TR17	Fair	435 409	7 296 721	1649	153
ABP21308-TR17	Single *Paragorgia* on boulder	435 261	7 296 993	1340	154
ABP21308-TR17	Single *Paragorgia* on boulder	435 263	7 296 997	1337	154
ABP21308-TR17	Single *Paragorgia* on boulder	435 261	7 296 994	1339	154
ABP21308-TR17	Single *Paragorgia* on boulder	435 256	7 296 985	1345	154
ABP21308-TR17	Poor	435 247	7 296 977	1348	155
ABP21308-TR17	Single *Paragorgia* on boulder	435 243	7 296 972	1351	155
ABP21308-TR17	Poor	435 241	7 296 972	1350	155
ABP21308-TR17	Single *Paragorgia* on boulder	435 243	7 296 965	1357	155
ABP21308-TR17	Fair	435 235	7 296 962	1357	155
ABP21308-TR17	Poor	435 228	7 296 958	1357	156
ABP21308-TR17	Poor	435 236	7 296 955	1363	155
ABP21308-TR17	Poor	435 233	7 296 955	1362	156
ABP21308-TR17	Fair	435 241	7 296 971	1351	155

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR17	Poor	435 244	7 296 975	1349	155
ABP21308-TR17	Single *Paragorgia* on boulder	435 129	7 297 239	1061	154
ABP21308-TR17	Fair	435 142	7 297 253	1054	153
ABP21308-TR17	Fair	435 136	7 297 260	1045	153
Anchor Corridor 6					
ABP21308-TR18	Single *Paragorgia* on boulder	434 280	7 297 110	1153	200
ABP21308-TR18	Poor	434 280	7 297 077	1184	199
ABP21308-TR18	Poor	434 273	7 297 066	1196	199
ABP21308-TR18	Fair	434 273	7 297 060	1202	199
ABP21308-TR18	Single *Paragorgia* on boulder	434 264	7 297 051	1214	199
ABP21308-TR18	Single *Paragorgia* on boulder	434 261	7 297 049	1216	200
ABP21308-TR18	Single *Paragorgia* on boulder	434 251	7 296 925	1337	198
ABP21308-TR18	Single *Paragorgia* on boulder	434 259	7 296 891	1367	197
ABP21308-TR18	Single *Paragorgia* on boulder	434 260	7 296 888	1369	197
ABP21308-TR18	Excellent	434 254	7 296 872	1387	197
ABP21308-TR18	Poor	434 044	7 296 384	1916	199
ABP21308-TR18	Good	434 037	7 296 377	1925	199
ABP21308-TR18	Excellent	434 035	7 296 373	1929	199
ABP21308-TR18	Good (total area was less than 25m^2)	434 011	7 296 311	1996	199
ABP21308-TR18	Excellent	433 904	7 295 986	2338	199
ABP21308-TR18	Good	433 670	7 295 360	3006	199
Anchor Corridor 7					
ABP21308-TR19	Fair	432 382	7 296 651	2759	236
ABP21308-TR19	Poor	432 387	7 296 657	2752	236
ABP21308-TR19	Poor	432 392	7 296 663	2744	236
ABP21308-TR19	Poor	432 395	7 296 666	2740	236
ABP21308-TR19	Single *Paragorgia* on boulder	432 397	7 296 669	2737	236
ABP21308-TR19	Poor	432 848	7 296 975	2192	236

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR19	Poor	432 857	7 296 993	2174	236
ABP21308-TR19	Fair	432 863	7 296 999	2166	236
ABP21308-TR19	Single *Paragorgia* on boulder	432 893	7 297 032	2123	237
ABP21308-TR19	Single *Paragorgia* on boulder	433 274	7 297 261	1679	236
ABP21308-TR19	Fair	433 316	7 297 274	1637	236
ABP21308-TR19	Single *Paragorgia* on boulder	433 680	7 297 531	1191	236
ABP21308-TR19	Single *Paragorgia* on boulder	433 685	7 297 533	1186	236
ABP21308-TR19	Poor	433 683	7 297 533	1188	236
ABP21308-TR19	Poor	433 694	7 297 542	1173	236
ABP21308-TR19	Single *Paragorgia* on boulder	433 737	7 297 571	1122	236
Anchor Corridor 8					
ABP21308-TR20	Poor	433 355	7 298 012	1327	262
ABP21308-TR20	Single *Paragorgia* on boulder	433 298	7 297 979	1388	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 293	7 297 976	1393	261
ABP21308-TR20	Poor	433 287	7 297 976	1399	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 287	7 297 974	1400	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 287	7 297 978	1399	261
ABP21308-TR20	Poor	433 284	7 297 976	1402	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 283	7 297 979	1403	261
ABP21308-TR20	Poor	433 281	7 297 981	1404	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 278	7 297 987	1406	261
ABP21308-TR20	Single *Paragorgia* on boulder	433 275	7 297 992	1409	262
ABP21308-TR20	Poor	433 273	7 297 994	1410	262
ABP21308-TR20	Good	433 267	7 297 997	1416	262
ABP21308-TR20	Single *Paragorgia* on boulder	433 261	7 298 003	1421	262

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR20	Single *Paragorgia* on boulder	433 265	7 298 003	1417	262
ABP21308-TR20	Single *Paragorgia* on boulder	432 755	7 297 934	1932	262
ABP21308-TR20	Poor	432 749	7 297 930	1938	262
ABP21308-TR20	Single *Paragorgia* on boulder	432 746	7 297 933	1941	262
ABP21308-TR20	Single *Paragorgia* on boulder	432 744	7 297 933	1943	262
ABP21308-TR20	Single *Paragorgia* on boulder	431 756	7 297 804	2939	262
ABP21308-TR20	Fair	431 750	7 297 803	2945	262
ABP21308-TR20	Poor	431 747	7 297 806	2948	262
ABP21308-TR20	Good	431 729	7 297 820	2964	263
Anchor Corridor 9					
ABP21308-TR21	Single *Paragorgia* on boulder	432 299	7 299 443	2679	298
ABP21308-TR21	Fair	432 296	7 299 438	2679	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 453	7 299 393	2519	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 462	7 299 391	2510	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 485	7 299 375	2482	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 491	7 299 369	2474	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 493	7 299 366	2471	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 775	7 299 220	2154	298
ABP21308-TR21	Single *Paragorgia* on boulder	432 786	7 299 213	2141	298
ABP21308-TR21	Excellent	433 105	7 299 017	1767	298
ABP21308-TR21	Fair	433 143	7 298 980	1716	297
ABP21308-TR21	Poor	433 153	7 298 971	1703	297
ABP21308-TR21	Poor	433 161	7 298 967	1694	297
ABP21308-TR21	Fair	433 169	7 298 963	1685	297
ABP21308-TR21	Single *Paragorgia* on boulder	433 193	7 298 946	1656	297

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR21	Poor	433 644	7 298 744	1163	298
Anchor Corridor 10					
ABP21308-TR22	Single *Paragorgia* on boulder	433 697	7 300 219	2245	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 589	7 300 492	2538	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 589	7 300 494	2540	335
ABP21308-TR22	Poor	433 579	7 300 506	2555	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 576	7 300 518	2567	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 576	7 300 517	2566	335
ABP21308-TR22	Fair	433 562	7 300 527	2581	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 561	7 300 554	2606	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 557	7 300 557	2611	335
ABP21308-TR22	Poor	433 545	7 300 586	2642	335
ABP21308-TR22	Excellent	433 542	7 300 590	2647	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 539	7 300 610	2666	335
ABP21308-TR22	Poor	433 534	7 300 619	2677	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 530	7 300 631	2689	335
ABP21308-TR22	Poor	433 529	7 300 638	2696	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 531	7 300 641	2698	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 529	7 300 647	2704	335
ABP21308-TR22	Single *Paragorgia* on boulder	433 460	7 300 702	2783	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 459	7 300 708	2789	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 458	7 300 714	2795	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 455	7 300 718	2800	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 409	7 300 810	2903	334

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]					
Transect	Overall Coral Garden Condition	Easting	Northing	Distance from PWL [m]*	Bearing from PWL [°]*
ABP21308-TR22	Fair	433 395	7 300 852	2947	334
ABP21308-TR22	Single *Paragorgia* on boulder	433 374	7 300 901	3000	334
Notes * = Distance and bearing is from the Storjo East PWL					

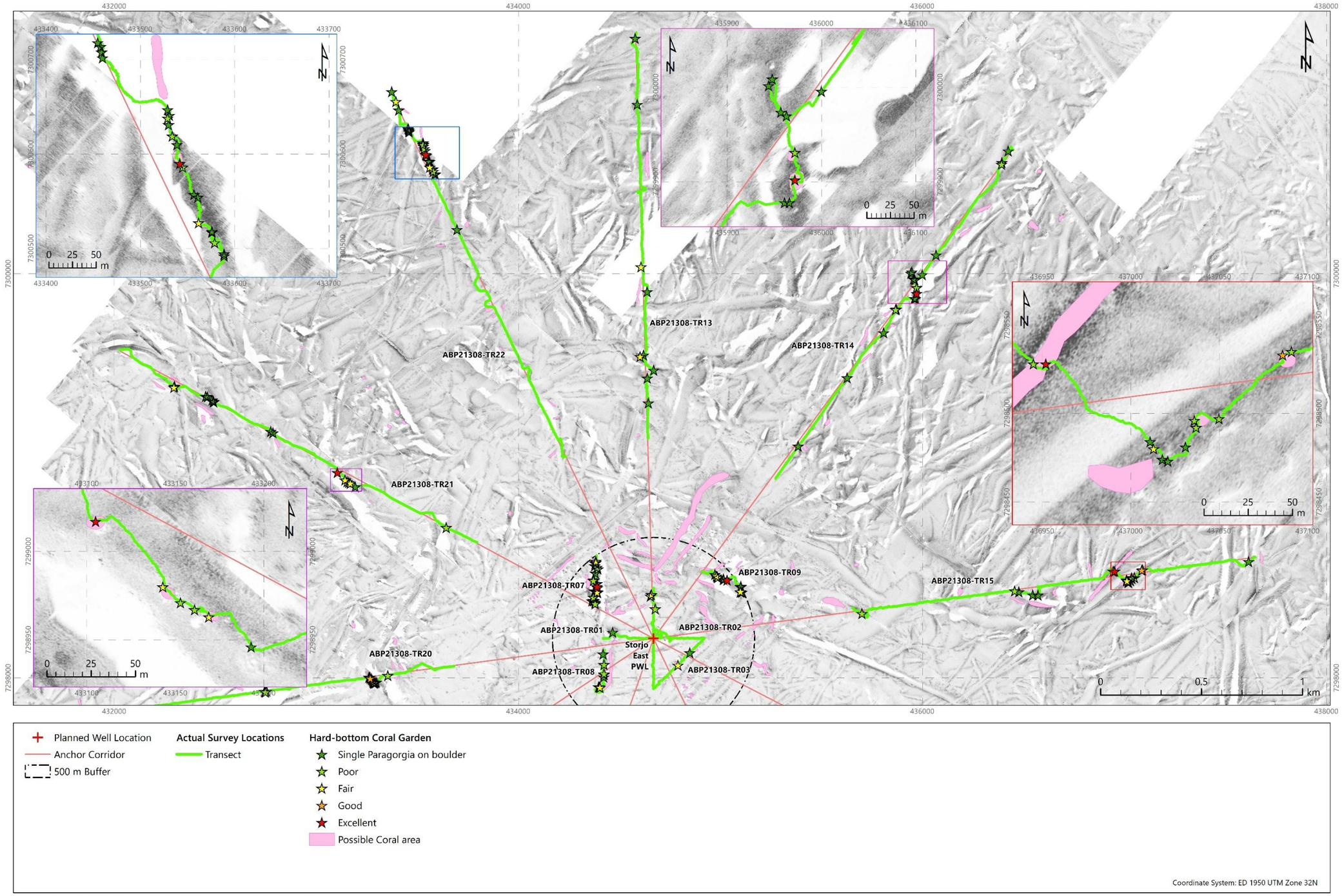


Figure 4.11: Spatial distribution of hard-bottom coral gardens, Northern part of the survey area

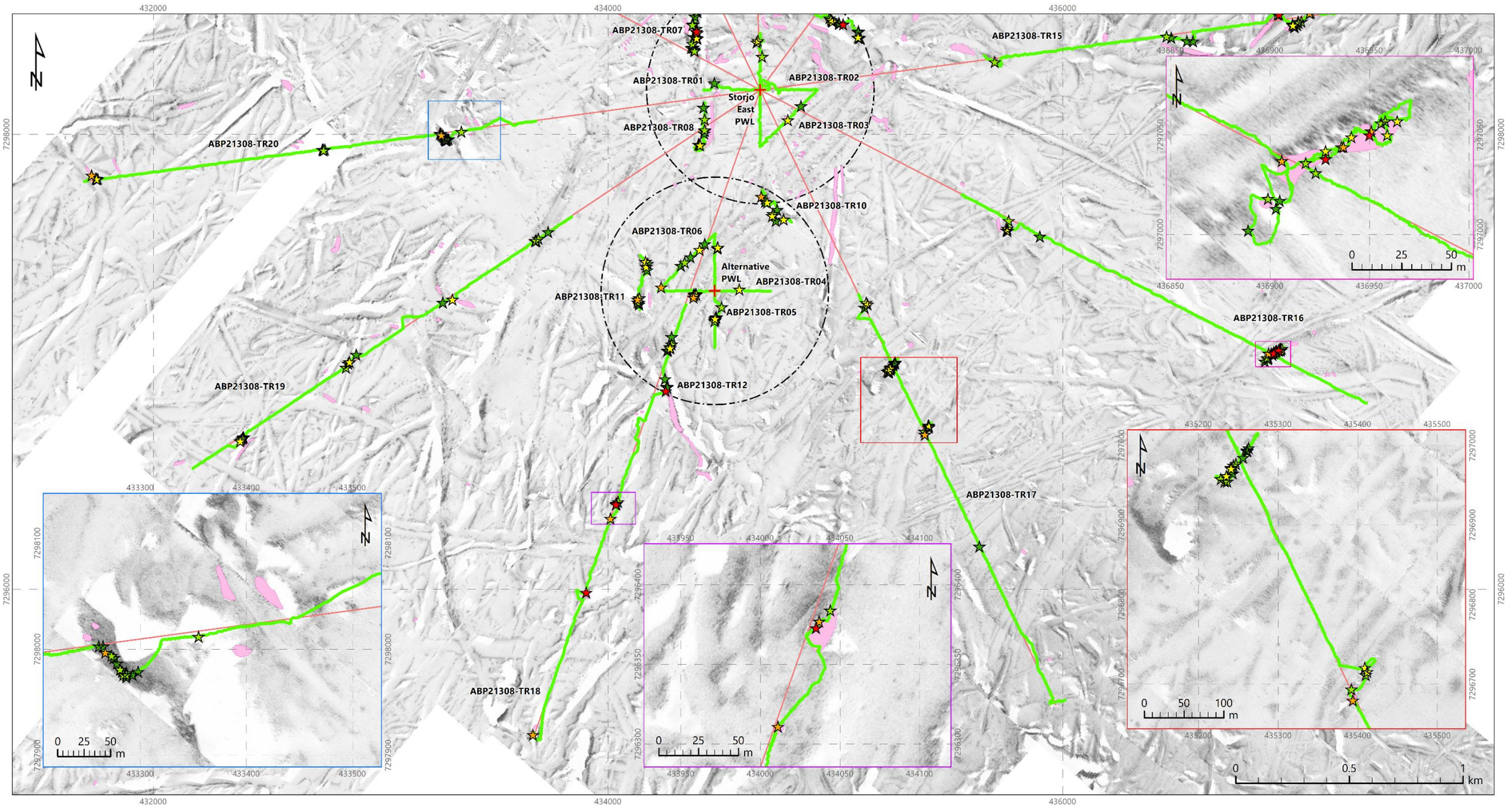


Figure 4.12: Spatial distribution of hard-bottom coral gardens, Southern part of the survey area

4.4.3 Soft-bottom Coral Gardens

The soft-bottom coral garden species *Isidella lofotensis* was not recorded within the survey area.

4.4.4 Deep-sea Sponge Aggregations

The observed sponge taxa included mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae), large sponges (Geodiidae), encrusting sponges (Demospongiae including *Hymedesmia paupertas*), erect sponges (including Axinellidae, *Phakellia* sp. and *Mycale lingua*) and stalked sponges (*Stylocordyla borealis*). Glass sponges (*Asconema* sp.) were infrequently recorded.

Most sponge observations remain unidentified as identification of many sponges requires microscopic investigation and should not be attempted from image data alone. Where the seabed along transects was obscured by sediment disturbed by large number of saithe (*Pollachius virens*) or seabed could not be seen otherwise the section was recorded as 'no visibility' within the sponge assessments.

4.4.4.1 Soft-bottom sponges

Soft-bottom sponges were recorded in low densities across the survey area and included mud covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae) and stalked sponges (*Stylocordyla borealis*).

Where present, soft-bottom sponges were recorded as either 'single individual' (< 1 % cover) or 'rare' (< 1 % cover). Small areas (< 10 m in length) along four transects (ABP21308-TR15, ABP21308-TR16, ABP21308-TR17 and ABP21308-TR18) were classified as 'scattered' (1 % to 5 % cover).

4.4.4.2 Hard-bottom sponges

Hard-bottom sponges were recorded along all transects and were particularly associated with the EUNIS habitat 'Deep-sea mixed substrata' (A6.2). Species included erect sponge (Axinellidae, *Phakellia* sp. and *Mycale lingua*), branching sponges (Demospongiae and *Antho dichotoma*) and encrusting sponges (including *Hymedesmia paupertas*).

Where present, hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover). Areas of 'common' (5 % to 10 % cover) were recorded along seven transects (ABP21308-TR10 and ABP21308-TR13 to ABP21308-TR18). Ares of 'high' (> 10 % cover) were identified along two transects (ABP21308-TR13 and ABP21308-TR14).

Table 4.7 provides summary statistics for the proportion of hard-bottom sponge abundance classes recorded in the survey area. Figures 4.13 and 4.14 present the distribution of hard-bottom sponge densities observed across the survey area.

Table 4.7: Summary of hard-bottom sponge cover classification

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 - 5 % cover]	[5 – 10 % cover]	[> 10 % cover]
Storjo East PWL and Alternative PWL						
ABP21308-TR01	51.4 % (343 m)	-	29.1 % (194 m)	19.5 % (130 m)	-	-
ABP21308-TR02	59.0 % (308 m)	-	17.2 % (90 m)	23.8 % (124 m)	-	-
ABP21308-TR03	23.2 % (85 m)	-	44.6 % (164 m)	32.2 % (118 m)	-	-
ABP21308-TR04*	45.5 % (219 m)	0.2 % (1 m)	29.0 % (139 m)	25.3 % (121 m)	-	-
ABP21308-TR05	38.9 % (209 m)	0.2 % (1 m)	25.1 % (135 m)	35.8 % (192 m)	-	-
ABP21308-TR06	8.8 % (32 m)	-	30.1 % (109 m)	61.2 % (222 m)	-	-
ABP21308-TR07	23.7 % (81 m)	-	43.0 % (147 m)	33.4 % (114 m)	-	-
ABP21308-TR08	30.4 % (89 m)	-	30.5 % (89 m)	39.1 % (114 m)	-	-
ABP21308-TR09	-	-	29.7 % (64 m)	70.3 % (150 m)	-	-
ABP21308-TR10	8.3 % (24 m)	9 % (26 m)	19.1 % (54 m)	55.1 % (156 m)	8.5 % (24 m)	-
ABP21308-TR11	22.9 % (66 m)	1.5 % (4 m)	19.6 % (57 m)	56.0 % (162 m)	-	-
Anchor corridor						
ABP21308-TR13*	21.5 % (425 m)	0.7 % (14 m)	39.8 % (788 m)	30.8 % (610 m)	5.8 % (114 m)	1.3 % (26 m)
ABP21308-TR14	44.1 % (946 m)	-	7.9 % (170 m)	26.0 % (558 m)	12.1 % (259 m)	9.9 % (212 m)
ABP21308-TR15	25.4 % (548 m)	0.5 % (12 m)	32.7 % (705 m)	33.0 % (711 m)	8.4 % (181 m)	-
ABP21308-TR16	55.7 % (1207 m)	0.3 % (7 m)	27.9 % (606 m)	14.9 % (324 m)	1.2 % (25 m)	-
ABP21308-TR17	34.6 % (765 m)	0.1 % (1 m)	23.2 % (513 m)	32.2 % (711 m)	9.9 % (219 m)	-
ABP21308-TR18*	40.0 % (873 m)	0.1 % (1 m)	24.6 % (537 m)	34.3 % (749 m)	1.1 % (24 m)	-
ABP21308-TR19	62.2 % (1285 m)	0.8 % (17 m)	10.6 % (219 m)	26.4 % (544 m)	-	-
ABP21308-TR20	53.9 % (1103 m)	-	24.2 % (494 m)	21.9 % (448 m)	-	-

Transect	None	Single Individual	Rare	Scattered	Common	High
		[< 1 % cover]		[1 - 5 % cover]	[5 – 10 % cover]	[> 10 % cover]
ABP21308-TR21	30.7 % (641 m)	0.1 % (1 m)	41.3 % (863 m)	27.9 % (582 m)	-	-
ABP21308-TR22	32.1 % (695 m)	-	37.7 % (817 m)	30.2 % (654 m)	-	-

Key

None	Single individual	Rare	Scattered	Common	High

Notes

* = The remainder of the transect was classified as 'no visibility'

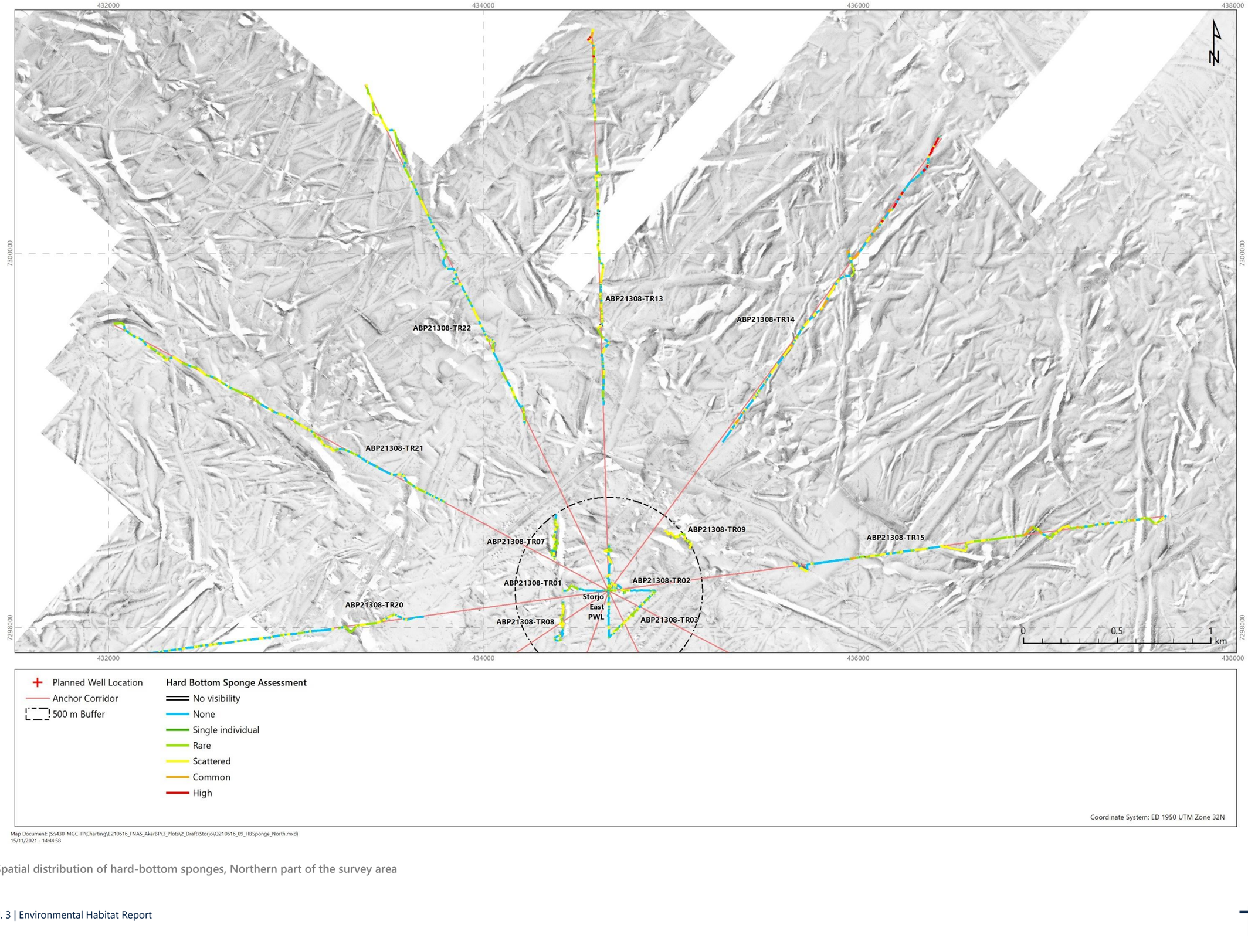


Figure 4.13: Spatial distribution of hard-bottom sponges, Northern part of the survey area

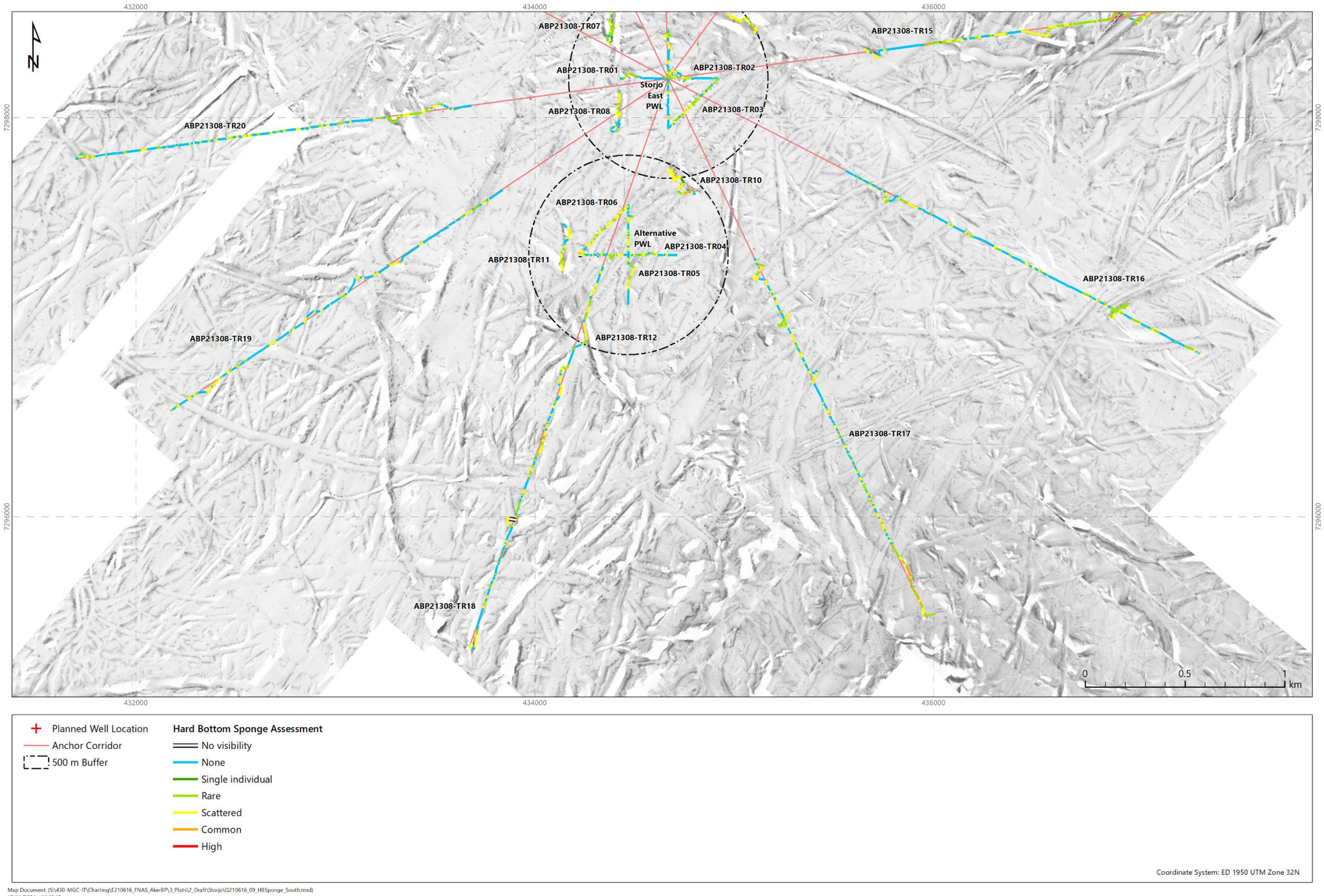


Figure 4.14: Spatial distribution of hard-bottom sponges, Southern part of the survey area

4.4.5 Sea Pens and Burrowing Megafauna Communities

Sea pens were sparse and only present at five transects (ABP21308-TR15, ABP21308-TR16 and ABP21308-TR19 to ABP21308-TR21). Where present sea pens were classified as 'poor' (< 5 specimens per 25 m^2). Sea pen species observed included *Virgularia* sp. and *Kophobelemnon stelliferum*. Bioturbation, including burrows and mounds, was observed throughout the survey area associated with the soft sediments.

4.4.6 Red List Species

All transects featured species assessed under the Norwegian Red List of Species, with most falling into the category 'Least concern'.

The gorgonian coral *P. arborea* and stony coral *D. pertusum* are listed as 'near threatened' (NBIC, 2015) and were observed throughout the survey area. The redfish *Sebastes norvegicus* is listed as 'endangered' (NBIC, 2015). Redfish were throughout the survey area but could not be identified to species level.

Table 4.8 provides details of fauna which is classified under the Norwegian Red List.

Table 4.8: Norwegian red list species

Taxon	Common Name	Norwegian Red List Status (NBIC, 2015)
Desmophyllum pertusum	Stony coral	NT
Paragorgia arborea	Bubblegum coral	NT
Sebastidae	Redfish	EN - *Sebastes norvegicus*
Notes EN = Endangered NT = Near Threatened		

5. Conclusions

Seabed sediments across the survey area comprised gravelly, sandy mud/muddy sand with varying proportions of coarser sediments. This corresponded to the level 3 EUNIS habitats 'Deep-sea mud' (A6.5) and 'Deep-sea mixed substrata' (A6.2). The EUNIS habitat 'Deep-sea mixed substrata' corresponded with areas of mottled or high SSS reflectivity and areas of low SSS reflectivity corresponded with the EUNIS habitat 'Deep-sea mud'. The biotope 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' (A5.631) was observed and coincided with areas of mottled SSS reflectivity particularly on the flanks of iceberg plough marks.

Epifauna associated with mixed substrata were very similar to those recorded included sponges (Porifera including Axinellidae, *Phakellia* sp. and *Mycale lingua*). Other fauna observed included gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), squat lobsters (Galatheoidea) and anemones (*Actinostola callosa*).

Observed fauna associated with the 'Deep-sea mud' habitat was generally sparse and similar to those recorded in both the Fugro 2020 and OEL 2019 surveys. Recorded fauna included sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), squat lobsters (Galatheoidea) and cushion stars (Valvatida including *Ceramaster granularis*) and mud-covered part buried sponges (possible Biemnidae/Tethyidae/Tetillidae/Theneidae).

Fauna associated with the 'Circalittoral *Desmophyllum pertusum* (*Lophelia pertusa*) reefs' biotope included sponges (Porifera including *Geodia* sp., Axinellidae, *Phakellia* sp. and *Mycale lingua*), gorgonian corals (*Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*), file shells (*Acesta excavata*), and anemones (Actiniaria including *Actinostola callosa*).

Fish observed in the survey area included saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), cod (*Gadus morhua*), tusk (*Brosme brosme*), ling (*Molva molva*), rabbitfish (*Chimaera monstrosa*) and flatfish (Pleuronectiformes).

Fauna observed during survey were typical of the region (Moen & Svensen, 2004; World Register of Marine Species [WoRMS] Editorial Board, 2021)..

Desmophyllum pertusum was recorded throughout the survey area with a low percentage cover and total living front area. These areas were classified as 'dead'. One area of *D. pertusum* reef was classified as 'good', three areas as 'fair' and eight areas as 'poor'. The area recorded as 'good' and one of the areas recorded as 'fair' were located within 500 m of the alternative PWL and one of the areas recorded as 'poor' was located within 500 m of the PWL. No areas of 'excellent' *D. pertusum* reef were recorded during the survey across the Storjo East survey area.

Three hard-bottom coral species were recorded during the current survey including *Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*). The recorded gorgonian corals were restricted to areas of coarse substrate and areas where *D. pertusum* (both dead and living) was present. The classifications of the coral condition ranged from 'single on boulder' to 'excellent'. Coral condition classified as 'excellent' were found at three locations within 500 m from either of the PWLs and nine areas within the anchor corridors. Coral condition classified as 'good' were found at five locations within 500 m from either of the PWLs and ten areas within the anchor corridors.

Soft-bottom sponges were predominantly recorded as either 'single individual' (< 1 % cover) or 'rare' (< 1 % cover) with small areas being classified as 'scattered' (1 – 5 % cover).

Hard-bottom sponges were predominantly recorded as either 'rare' (< 1 % cover) or 'scattered' (1 % to 5 % cover) with some sections classified as 'common' (5 % to 10 % cover) and 'high' (> 15 % cover).

To represent the OSPAR habitat 'Deep-sea sponge aggregations' soft-bottom sponges must be classified as 'high' (> 10 % cover) density. Therefore, the sponge communities recorded across the Storjo East survey area do not constitute the OSPAR (2010b) listed habitat 'Deep-sea sponge aggregations'.

Sea pens were sparse throughout the survey area and were all classified as 'poor' (< 5 specimens per 25 m^2).

The coral species *P. arborea* and *D. pertusum* are currently listed as 'Near threatened' on the Norwegian Red List (NBIC, 2015). Within the family Sebastidae, *S. norvegicus* is listed as 'Endangered' (NBIC, 2015). Redfish were observed but could not be identified to species level. Other taxa recorded in the Storjo East survey area were assessed as 'least concern' or 'not evaluated'.

No other sensitive habitats or species were identified from either the geophysical or photographic data.

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Appendix A

Guidelines on Use of Report

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Appendix B

Logs

B.1 Survey Log

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	18:13	ABP21308_TR01	Video	SOL	1	344.7	434 419.0	7 298 195.0	434 419.0	7 298 195.1	0.1
16/09/2021	18:16	ABP21308_TR01	Still	ABP21308_TR01_001	NA		434 419.0	7 298 195.0	434 448.0	7 298 195.3	29.0
16/09/2021	18:18	ABP21308_TR01	Still	ABP21308_TR01_002	NA		434 419.0	7 298 195.0	434 454.8	7 298 202.6	36.6
16/09/2021	18:19	ABP21308_TR01	Still	ABP21308_TR01_003	NA		434 419.0	7 298 195.0	434 467.1	7 298 224.2	56.3
16/09/2021	18:20	ABP21308_TR01	Still	ABP21308_TR01_004	NA		434 419.0	7 298 195.0	434 468.3	7 298 226.8	58.7
16/09/2021	18:26	ABP21308_TR01	Still	ABP21308_TR01_005	NA		434 419.0	7 298 195.0	434 533.6	7 298 206.0	115.1
16/09/2021	18:32	ABP21308_TR01	Still	ABP21308_TR01_006	NA		434 419.0	7 298 195.0	434 595.0	7 298 197.3	176.0
16/09/2021	18:35	ABP21308_TR01	Still	ABP21308_TR01_007	NA		434 419.0	7 298 195.0	434 622.2	7 298 193.6	203.2
16/09/2021	18:39	ABP21308_TR01	Still	ABP21308_TR01_008	NA		434 419.0	7 298 195.0	434 670.7	7 298 195.8	251.7
16/09/2021	18:41	ABP21308_TR01	Still	ABP21308_TR01_009	NA		434 419.0	7 298 195.0	434 694.0	7 298 197.4	275.0
16/09/2021	18:41	ABP21308_TR01	Still	ABP21308_TR01_010	NA		434 419.0	7 298 195.0	434 694.2	7 298 197.1	275.2
16/09/2021	18:41	ABP21308_TR01	Still	ABP21308_TR01_011	NA		434 419.0	7 298 195.0	434 696.0	7 298 197.2	277.0
16/09/2021	18:45	ABP21308_TR01	Still	ABP21308_TR01_012	NA		434 419.0	7 298 195.0	434 673.8	7 298 223.8	256.4
16/09/2021	18:45	ABP21308_TR01	Still	ABP21308_TR01_013	NA		434 419.0	7 298 195.0	434 673.4	7 298 223.2	256.0
16/09/2021	18:47	ABP21308_TR01	Still	ABP21308_TR01_014	NA		434 419.0	7 298 195.0	434 683.4	7 298 238.1	267.9
16/09/2021	18:47	ABP21308_TR01	Still	ABP21308_TR01_015	NA		434 419.0	7 298 195.0	434 685.6	7 298 237.5	270.0
16/09/2021	18:47	ABP21308_TR01	Still	ABP21308_TR01_016	NA		434 419.0	7 298 195.0	434 686.5	7 298 237.2	270.8
16/09/2021	18:48	ABP21308_TR01	Still	ABP21308_TR01_017	NA		434 419.0	7 298 195.0	434 704.7	7 298 226.8	287.5
16/09/2021	18:48	ABP21308_TR01	Still	ABP21308_TR01_018	NA		434 419.0	7 298 195.0	434 704.5	7 298 226.6	287.2
16/09/2021	18:51	ABP21308_TR01	Still	ABP21308_TR01_019	NA		434 419.0	7 298 195.0	434 737.0	7 298 204.4	318.1
16/09/2021	18:51	ABP21308_TR01	Still	ABP21308_TR01_020	NA		434 419.0	7 298 195.0	434 739.7	7 298 199.7	320.7
16/09/2021	18:51	ABP21308_TR01	Still	ABP21308_TR01_021	NA		434 419.0	7 298 195.0	434 740.8	7 298 198.7	321.8
16/09/2021	18:57	ABP21308_TR01	Still	ABP21308_TR01_022	NA		434 419.0	7 298 195.0	434 774.3	7 298 198.0	355.3
16/09/2021	18:57	ABP21308_TR01	Still	ABP21308_TR01_023	NA		434 419.0	7 298 195.0	434 774.3	7 298 197.9	355.3
16/09/2021	18:57	ABP21308_TR01	Still	ABP21308_TR01_024	NA		434 419.0	7 298 195.0	434 776.0	7 298 198.5	357.0
16/09/2021	19:02	ABP21308_TR01	Still	ABP21308_TR01_025	NA		434 419.0	7 298 195.0	434 837.0	7 298 197.7	418.0
16/09/2021	19:06	ABP21308_TR01	Still	ABP21308_TR01_026	NA		434 419.0	7 298 195.0	434 911.1	7 298 199.5	492.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	19:06	ABP21308_TR01	Still	ABP21308_TR01_027	NA		434 419.0	7 298 195.0	434 911.4	7 298 199.2	492.4
16/09/2021	19:06	ABP21308_TR01	Still	ABP21308_TR01_028	NA		434 419.0	7 298 195.0	434 913.9	7 298 197.5	494.9
16/09/2021	19:07	ABP21308_TR01	Still	ABP21308_TR01_029	NA		434 419.0	7 298 195.0	434 922.0	7 298 195.0	503.0
16/09/2021	19:07	ABP21308_TR01	Video	EOL	2	331.4	434 419.0	7 298 195.0	434 921.4	7 298 196.3	502.4
16/09/2021	19:53	ABP21308_TR02	Video	SOL	5	338.2	434 669.0	7 297 945.0	434 669.4	7 297 944.1	1.0
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_001	NA		434 669.0	7 297 945.0	434 670.7	7 297 989.7	44.7
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_002	NA		434 669.0	7 297 945.0	434 670.2	7 297 991.2	46.2
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_003	NA		434 669.0	7 297 945.0	434 670.5	7 297 991.9	46.9
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_004	NA		434 669.0	7 297 945.0	434 670.9	7 297 991.9	46.9
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_005	NA		434 669.0	7 297 945.0	434 669.9	7 297 993.1	48.1
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_006	NA		434 669.0	7 297 945.0	434 670.1	7 297 993.7	48.7
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_007	NA		434 669.0	7 297 945.0	434 670.6	7 297 994.2	49.2
16/09/2021	19:56	ABP21308_TR02	Still	ABP21308_TR02_008	NA		434 669.0	7 297 945.0	434 671.0	7 297 994.9	49.9
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_009	NA		434 669.0	7 297 945.0	434 671.0	7 297 995.6	50.6
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_010	NA		434 669.0	7 297 945.0	434 670.8	7 297 996.1	51.1
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_011	NA		434 669.0	7 297 945.0	434 670.2	7 297 996.8	51.8
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_012	NA		434 669.0	7 297 945.0	434 670.6	7 297 997.3	52.3
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_013	NA		434 669.0	7 297 945.0	434 671.0	7 297 998.2	53.2
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_014	NA		434 669.0	7 297 945.0	434 670.6	7 297 998.6	53.6
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_015	NA		434 669.0	7 297 945.0	434 670.1	7 297 999.0	54.0
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_016	NA		434 669.0	7 297 945.0	434 669.5	7 297 999.7	54.7
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_017	NA		434 669.0	7 297 945.0	434 669.2	7 298 000.3	55.3
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_018	NA		434 669.0	7 297 945.0	434 668.9	7 298 000.6	55.6
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_019	NA		434 669.0	7 297 945.0	434 668.8	7 298 001.9	56.9
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_020	NA		434 669.0	7 297 945.0	434 669.3	7 298 003.7	58.7
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_021	NA		434 669.0	7 297 945.0	434 668.9	7 298 004.7	59.7
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_022	NA		434 669.0	7 297 945.0	434 668.2	7 298 005.4	60.4
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_023	NA		434 669.0	7 297 945.0	434 668.7	7 298 006.5	61.5
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_024	NA		434 669.0	7 297 945.0	434 668.8	7 298 007.0	62.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_025	NA		434 669.0	7 297 945.0	434 668.8	7 298 007.1	62.1
16/09/2021	19:57	ABP21308_TR02	Still	ABP21308_TR02_026	NA		434 669.0	7 297 945.0	434 667.8	7 298 008.9	63.9
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_027	NA		434 669.0	7 297 945.0	434 668.3	7 298 022.2	77.2
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_028	NA		434 669.0	7 297 945.0	434 668.3	7 298 022.5	77.5
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_029	NA		434 669.0	7 297 945.0	434 668.3	7 298 023.0	78.0
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_030	NA		434 669.0	7 297 945.0	434 668.9	7 298 023.2	78.2
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_031	NA		434 669.0	7 297 945.0	434 668.6	7 298 023.3	78.3
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_032	NA		434 669.0	7 297 945.0	434 668.5	7 298 023.2	78.2
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_033	NA		434 669.0	7 297 945.0	434 668.4	7 298 023.3	78.3
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_034	NA		434 669.0	7 297 945.0	434 668.5	7 298 023.8	78.8
16/09/2021	19:58	ABP21308_TR02	Still	ABP21308_TR02_035	NA		434 669.0	7 297 945.0	434 668.7	7 298 023.8	78.8
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_036	NA		434 669.0	7 297 945.0	434 669.2	7 298 023.7	78.7
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_037	NA		434 669.0	7 297 945.0	434 669.4	7 298 023.9	78.9
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_038	NA		434 669.0	7 297 945.0	434 669.2	7 298 024.4	79.4
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_039	NA		434 669.0	7 297 945.0	434 669.6	7 298 024.8	79.8
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_040	NA		434 669.0	7 297 945.0	434 669.6	7 298 025.2	80.2
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_041	NA		434 669.0	7 297 945.0	434 669.8	7 298 025.8	80.8
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_042	NA		434 669.0	7 297 945.0	434 670.0	7 298 026.0	81.0
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_043	NA		434 669.0	7 297 945.0	434 670.0	7 298 026.3	81.3
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_044	NA		434 669.0	7 297 945.0	434 669.8	7 298 026.3	81.3
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_045	NA		434 669.0	7 297 945.0	434 669.5	7 298 027.0	82.0
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_046	NA		434 669.0	7 297 945.0	434 669.0	7 298 034.8	89.8
16/09/2021	19:59	ABP21308_TR02	Still	ABP21308_TR02_047	NA		434 669.0	7 297 945.0	434 669.2	7 298 035.4	90.4
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_048	NA		434 669.0	7 297 945.0	434 670.2	7 298 098.5	153.5
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_049	NA		434 669.0	7 297 945.0	434 670.0	7 298 098.9	153.9
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_050	NA		434 669.0	7 297 945.0	434 670.3	7 298 099.8	154.8
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_051	NA		434 669.0	7 297 945.0	434 670.4	7 298 100.5	155.5
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_052	NA		434 669.0	7 297 945.0	434 670.0	7 298 101.5	156.5
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_053	NA		434 669.0	7 297 945.0	434 670.0	7 298 102.9	157.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	20:03	ABP21308_TR02	Still	ABP21308_TR02_054	NA		434 669.0	7 297 945.0	434 668.6	7 298 105.2	160.2
16/09/2021	20:05	ABP21308_TR02	Still	ABP21308_TR02_055	NA		434 669.0	7 297 945.0	434 669.2	7 298 131.8	186.8
16/09/2021	20:07	ABP21308_TR02	Still	ABP21308_TR02_056	NA		434 669.0	7 297 945.0	434 667.6	7 298 164.4	219.4
16/09/2021	20:09	ABP21308_TR02	Still	ABP21308_TR02_057	NA		434 669.0	7 297 945.0	434 667.4	7 298 190.6	245.6
16/09/2021	20:09	ABP21308_TR02	Still	ABP21308_TR02_058	NA		434 669.0	7 297 945.0	434 668.5	7 298 199.7	254.7
16/09/2021	20:09	ABP21308_TR02	Still	ABP21308_TR02_059	NA		434 669.0	7 297 945.0	434 668.9	7 298 202.7	257.7
16/09/2021	20:10	ABP21308_TR02	Still	ABP21308_TR02_060	NA		434 669.0	7 297 945.0	434 669.6	7 298 203.6	258.6
16/09/2021	20:11	ABP21308_TR02	Still	ABP21308_TR02_061	NA		434 669.0	7 297 945.0	434 669.3	7 298 219.1	274.1
16/09/2021	20:11	ABP21308_TR02	Still	ABP21308_TR02_062	NA		434 669.0	7 297 945.0	434 668.4	7 298 220.5	275.5
16/09/2021	20:11	ABP21308_TR02	Still	ABP21308_TR02_063	NA		434 669.0	7 297 945.0	434 669.5	7 298 221.4	276.4
16/09/2021	20:11	ABP21308_TR02	Still	ABP21308_TR02_064	NA		434 669.0	7 297 945.0	434 670.1	7 298 230.8	285.8
16/09/2021	20:12	ABP21308_TR02	Still	ABP21308_TR02_065	NA		434 669.0	7 297 945.0	434 671.6	7 298 232.3	287.3
16/09/2021	20:14	ABP21308_TR02	Still	ABP21308_TR02_066	NA		434 669.0	7 297 945.0	434 660.5	7 298 271.2	326.3
16/09/2021	20:14	ABP21308_TR02	Still	ABP21308_TR02_067	NA		434 669.0	7 297 945.0	434 663.1	7 298 275.5	330.6
16/09/2021	20:14	ABP21308_TR02	Still	ABP21308_TR02_068	NA		434 669.0	7 297 945.0	434 668.1	7 298 277.8	332.8
16/09/2021	20:15	ABP21308_TR02	Still	ABP21308_TR02_069	NA		434 669.0	7 297 945.0	434 671.0	7 298 280.8	335.8
16/09/2021	20:16	ABP21308_TR02	Still	ABP21308_TR02_070	NA		434 669.0	7 297 945.0	434 669.3	7 298 293.3	348.3
16/09/2021	20:16	ABP21308_TR02	Still	ABP21308_TR02_071	NA		434 669.0	7 297 945.0	434 669.0	7 298 295.9	350.9
16/09/2021	20:19	ABP21308_TR02	Still	ABP21308_TR02_072	NA		434 669.0	7 297 945.0	434 678.6	7 298 342.5	397.6
16/09/2021	20:19	ABP21308_TR02	Still	ABP21308_TR02_073	NA		434 669.0	7 297 945.0	434 679.1	7 298 343.3	398.4
16/09/2021	20:20	ABP21308_TR02	Still	ABP21308_TR02_074	NA		434 669.0	7 297 945.0	434 678.8	7 298 351.2	406.3
16/09/2021	20:20	ABP21308_TR02	Still	ABP21308_TR02_075	NA		434 669.0	7 297 945.0	434 677.4	7 298 357.5	412.6
16/09/2021	20:21	ABP21308_TR02	Still	ABP21308_TR02_076	NA		434 669.0	7 297 945.0	434 671.9	7 298 362.8	417.8
16/09/2021	20:21	ABP21308_TR02	Still	ABP21308_TR02_077	NA		434 669.0	7 297 945.0	434 666.1	7 298 375.5	430.5
16/09/2021	20:23	ABP21308_TR02	Still	ABP21308_TR02_078	NA		434 669.0	7 297 945.0	434 668.2	7 298 403.3	458.3
16/09/2021	20:25	ABP21308_TR02	Still	ABP21308_TR02_079	NA		434 669.0	7 297 945.0	434 670.5	7 298 411.2	466.2
16/09/2021	20:25	ABP21308_TR02	Still	ABP21308_TR02_080	NA		434 669.0	7 297 945.0	434 662.6	7 298 412.7	467.7
16/09/2021	20:25	ABP21308_TR02	Still	ABP21308_TR02_081	NA		434 669.0	7 297 945.0	434 662.2	7 298 413.3	468.3
16/09/2021	20:25	ABP21308_TR02	Still	ABP21308_TR02_082	NA		434 669.0	7 297 945.0	434 660.1	7 298 412.9	468.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	20:26	ABP21308_TR02	Still	ABP21308_TR02_083	NA		434 669.0	7 297 945.0	434 657.9	7 298 411.0	466.1
16/09/2021	20:28	ABP21308_TR02	Still	ABP21308_TR02_084	NA		434 669.0	7 297 945.0	434 669.6	7 298 415.7	470.7
16/09/2021	20:29	ABP21308_TR02	Still	ABP21308_TR02_085	NA		434 669.0	7 297 945.0	434 670.1	7 298 444.0	499.0
16/09/2021	20:29	ABP21308_TR02	Video	EOL	6	342.0	434 669.0	7 297 945.0	434 670.7	7 298 444.2	499.2
16/09/2021	19:22	ABP21308_TR03	Video	SOL	3	329.6	434 919.0	7 298 195.0	434 921.3	7 298 196.8	2.9
16/09/2021	19:23	ABP21308_TR03	Still	ABP21308_TR03_001	NA		434 919.0	7 298 195.0	434 904.7	7 298 179.5	21.1
16/09/2021	19:25	ABP21308_TR03	Still	ABP21308_TR03_002	NA		434 919.0	7 298 195.0	434 877.0	7 298 153.7	58.9
16/09/2021	19:27	ABP21308_TR03	Still	ABP21308_TR03_003	NA		434 919.0	7 298 195.0	434 855.0	7 298 130.2	91.1
16/09/2021	19:27	ABP21308_TR03	Still	ABP21308_TR03_004	NA		434 919.0	7 298 195.0	434 853.6	7 298 129.4	92.6
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_005	NA		434 919.0	7 298 195.0	434 828.0	7 298 105.2	127.8
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_006	NA		434 919.0	7 298 195.0	434 826.1	7 298 104.1	130.0
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_007	NA		434 919.0	7 298 195.0	434 824.9	7 298 103.3	131.4
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_008	NA		434 919.0	7 298 195.0	434 823.0	7 298 102.4	133.4
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_009	NA		434 919.0	7 298 195.0	434 822.4	7 298 101.5	134.4
16/09/2021	19:29	ABP21308_TR03	Still	ABP21308_TR03_010	NA		434 919.0	7 298 195.0	434 821.5	7 298 100.4	135.9
16/09/2021	19:30	ABP21308_TR03	Still	ABP21308_TR03_011	NA		434 919.0	7 298 195.0	434 820.4	7 298 099.1	137.5
16/09/2021	19:30	ABP21308_TR03	Still	ABP21308_TR03_012	NA		434 919.0	7 298 195.0	434 818.1	7 298 087.8	147.2
16/09/2021	19:31	ABP21308_TR03	Still	ABP21308_TR03_013	NA		434 919.0	7 298 195.0	434 803.1	7 298 077.4	165.1
16/09/2021	19:32	ABP21308_TR03	Still	ABP21308_TR03_014	NA		434 919.0	7 298 195.0	434 796.8	7 298 071.3	173.9
16/09/2021	19:32	ABP21308_TR03	Still	ABP21308_TR03_015	NA		434 919.0	7 298 195.0	434 796.7	7 298 070.9	174.2
16/09/2021	19:32	ABP21308_TR03	Still	ABP21308_TR03_016	NA		434 919.0	7 298 195.0	434 796.6	7 298 068.9	175.7
16/09/2021	19:32	ABP21308_TR03	Still	ABP21308_TR03_017	NA		434 919.0	7 298 195.0	434 798.4	7 298 065.7	176.8
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_018	NA		434 919.0	7 298 195.0	434 797.4	7 298 064.5	178.4
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_019	NA		434 919.0	7 298 195.0	434 794.4	7 298 065.5	179.7
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_020	NA		434 919.0	7 298 195.0	434 794.0	7 298 065.5	180.0
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_021	NA		434 919.0	7 298 195.0	434 793.8	7 298 065.3	180.3
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_022	NA		434 919.0	7 298 195.0	434 791.6	7 298 064.0	182.7
16/09/2021	19:33	ABP21308_TR03	Still	ABP21308_TR03_023	NA		434 919.0	7 298 195.0	434 791.8	7 298 063.4	183.0
16/09/2021	19:34	ABP21308_TR03	Still	ABP21308_TR03_024	NA		434 919.0	7 298 195.0	434 789.5	7 298 068.6	181.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	19:35	ABP21308_TR03	Still	ABP21308_TR03_025	NA		434 919.0	7 298 195.0	434 785.6	7 298 060.6	189.4
16/09/2021	19:36	ABP21308_TR03	Still	ABP21308_TR03_026	NA		434 919.0	7 298 195.0	434 779.0	7 298 055.0	198.0
16/09/2021	19:37	ABP21308_TR03	Still	ABP21308_TR03_027	NA		434 919.0	7 298 195.0	434 767.9	7 298 044.4	213.3
16/09/2021	19:37	ABP21308_TR03	Still	ABP21308_TR03_028	NA		434 919.0	7 298 195.0	434 767.5	7 298 043.8	214.0
16/09/2021	19:37	ABP21308_TR03	Still	ABP21308_TR03_029	NA		434 919.0	7 298 195.0	434 765.7	7 298 039.8	218.1
16/09/2021	19:38	ABP21308_TR03	Still	ABP21308_TR03_030	NA		434 919.0	7 298 195.0	434 757.9	7 298 035.6	226.6
16/09/2021	19:38	ABP21308_TR03	Still	ABP21308_TR03_031	NA		434 919.0	7 298 195.0	434 756.9	7 298 035.2	227.6
16/09/2021	19:38	ABP21308_TR03	Still	ABP21308_TR03_032	NA		434 919.0	7 298 195.0	434 756.6	7 298 034.5	228.3
16/09/2021	19:38	ABP21308_TR03	Still	ABP21308_TR03_033	NA		434 919.0	7 298 195.0	434 751.8	7 298 027.1	237.0
16/09/2021	19:39	ABP21308_TR03	Still	ABP21308_TR03_034	NA		434 919.0	7 298 195.0	434 748.7	7 298 024.2	241.2
16/09/2021	19:39	ABP21308_TR03	Still	ABP21308_TR03_035	NA		434 919.0	7 298 195.0	434 747.9	7 298 022.5	243.0
16/09/2021	19:40	ABP21308_TR03	Still	ABP21308_TR03_036	NA		434 919.0	7 298 195.0	434 735.7	7 298 010.3	260.2
16/09/2021	19:40	ABP21308_TR03	Still	ABP21308_TR03_037	NA		434 919.0	7 298 195.0	434 733.6	7 298 003.7	266.4
16/09/2021	19:42	ABP21308_TR03	Still	ABP21308_TR03_038	NA		434 919.0	7 298 195.0	434 713.4	7 297 989.7	290.6
16/09/2021	19:43	ABP21308_TR03	Still	ABP21308_TR03_039	NA		434 919.0	7 298 195.0	434 699.3	7 297 983.7	304.8
16/09/2021	19:43	ABP21308_TR03	Still	ABP21308_TR03_040	NA		434 919.0	7 298 195.0	434 697.6	7 297 982.9	306.6
16/09/2021	19:43	ABP21308_TR03	Still	ABP21308_TR03_041	NA		434 919.0	7 298 195.0	434 695.7	7 297 977.3	311.9
16/09/2021	19:43	ABP21308_TR03	Still	ABP21308_TR03_042	NA		434 919.0	7 298 195.0	434 696.3	7 297 975.3	312.8
16/09/2021	19:44	ABP21308_TR03	Still	ABP21308_TR03_043	NA		434 919.0	7 298 195.0	434 691.0	7 297 967.3	322.2
16/09/2021	19:46	ABP21308_TR03	Still	ABP21308_TR03_044	NA		434 919.0	7 298 195.0	434 668.0	7 297 945.0	354.3
16/09/2021	19:46	ABP21308_TR03	Video	EOL	4	339.5	434 919.0	7 298 195.0	434 667.0	7 297 942.8	356.5
18/09/2021	07:03	ABP21308_TR04	Video	SOL	42	332.3	434 219.0	7 297 312.0	434 241.1	7 297 312.2	22.1
18/09/2021	07:04	ABP21308_TR04	Still	ABP21308_TR04_001	NA		434 219.0	7 297 312.0	434 269.6	7 297 310.9	50.6
18/09/2021	07:05	ABP21308_TR04	Still	ABP21308_TR04_002	NA		434 219.0	7 297 312.0	434 271.8	7 297 310.9	52.8
18/09/2021	07:05	ABP21308_TR04	Still	ABP21308_TR04_003	NA		434 219.0	7 297 312.0	434 274.7	7 297 310.9	55.7
18/09/2021	07:05	ABP21308_TR04	Still	ABP21308_TR04_004	NA		434 219.0	7 297 312.0	434 287.5	7 297 310.8	68.5
18/09/2021	07:08	ABP21308_TR04	Still	ABP21308_TR04_005	NA		434 219.0	7 297 312.0	434 329.8	7 297 312.3	110.8
18/09/2021	07:08	ABP21308_TR04	Still	ABP21308_TR04_006	NA		434 219.0	7 297 312.0	434 332.1	7 297 312.7	113.1
18/09/2021	07:08	ABP21308_TR04	Still	ABP21308_TR04_007	NA		434 219.0	7 297 312.0	434 337.4	7 297 312.6	118.4

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	07:10	ABP21308_TR04	Still	ABP21308_TR04_008	NA		434 219.0	7 297 312.0	434 370.2	7 297 313.3	151.2
18/09/2021	07:10	ABP21308_TR04	Still	ABP21308_TR04_009	NA		434 219.0	7 297 312.0	434 374.9	7 297 310.1	155.9
18/09/2021	07:11	ABP21308_TR04	Still	ABP21308_TR04_010	NA		434 219.0	7 297 312.0	434 380.8	7 297 306.4	161.8
18/09/2021	07:11	ABP21308_TR04	Still	ABP21308_TR04_011	NA		434 219.0	7 297 312.0	434 382.0	7 297 304.0	163.2
18/09/2021	07:11	ABP21308_TR04	Still	ABP21308_TR04_012	NA		434 219.0	7 297 312.0	434 380.3	7 297 303.8	161.5
18/09/2021	07:12	ABP21308_TR04	Still	ABP21308_TR04_013	NA		434 219.0	7 297 312.0	434 377.7	7 297 302.7	159.0
18/09/2021	07:12	ABP21308_TR04	Still	ABP21308_TR04_014	NA		434 219.0	7 297 312.0	434 378.0	7 297 299.6	159.4
18/09/2021	07:12	ABP21308_TR04	Still	ABP21308_TR04_015	NA		434 219.0	7 297 312.0	434 378.2	7 297 296.9	160.0
18/09/2021	07:12	ABP21308_TR04	Still	ABP21308_TR04_016	NA		434 219.0	7 297 312.0	434 378.9	7 297 295.2	160.8
18/09/2021	07:13	ABP21308_TR04	Still	ABP21308_TR04_017	NA		434 219.0	7 297 312.0	434 380.6	7 297 292.9	162.7
18/09/2021	07:13	ABP21308_TR04	Still	ABP21308_TR04_018	NA		434 219.0	7 297 312.0	434 381.0	7 297 290.4	163.5
18/09/2021	07:13	ABP21308_TR04	Still	ABP21308_TR04_019	NA		434 219.0	7 297 312.0	434 381.0	7 297 291.1	163.3
18/09/2021	07:17	ABP21308_TR04	Still	ABP21308_TR04_020	NA		434 219.0	7 297 312.0	434 458.7	7 297 310.9	239.7
18/09/2021	07:18	ABP21308_TR04	Still	ABP21308_TR04_021	NA		434 219.0	7 297 312.0	434 478.5	7 297 311.4	259.5
18/09/2021	07:21	ABP21308_TR04	Still	ABP21308_TR04_022	NA		434 219.0	7 297 312.0	434 543.1	7 297 311.5	324.1
18/09/2021	07:23	ABP21308_TR04	Still	ABP21308_TR04_023	NA		434 219.0	7 297 312.0	434 575.3	7 297 320.6	356.4
18/09/2021	07:23	ABP21308_TR04	Still	ABP21308_TR04_024	NA		434 219.0	7 297 312.0	434 576.6	7 297 320.1	357.7
18/09/2021	07:23	ABP21308_TR04	Still	ABP21308_TR04_025	NA		434 219.0	7 297 312.0	434 579.8	7 297 319.5	360.9
18/09/2021	07:23	ABP21308_TR04	Still	ABP21308_TR04_026	NA		434 219.0	7 297 312.0	434 581.3	7 297 318.9	362.4
18/09/2021	07:24	ABP21308_TR04	Still	ABP21308_TR04_027	NA		434 219.0	7 297 312.0	434 582.5	7 297 318.5	363.6
18/09/2021	07:24	ABP21308_TR04	Still	ABP21308_TR04_028	NA		434 219.0	7 297 312.0	434 583.2	7 297 319.6	364.3
18/09/2021	07:24	ABP21308_TR04	Still	ABP21308_TR04_029	NA		434 219.0	7 297 312.0	434 585.0	7 297 319.7	366.1
18/09/2021	07:25	ABP21308_TR04	Still	ABP21308_TR04_030	NA		434 219.0	7 297 312.0	434 603.3	7 297 311.2	384.3
18/09/2021	07:30	ABP21308_TR04	Still	ABP21308_TR04_031	NA		434 219.0	7 297 312.0	434 714.7	7 297 310.8	495.7
18/09/2021	07:31	ABP21308_TR04	Video	EOL	43	329.4	434 219.0	7 297 312.0	434 714.7	7 297 310.5	495.7
18/09/2021	06:04	ABP21308_TR05	Video	SOL	37	329.5	434 469.0	7 297 062.0	434 469.1	7 297 061.8	0.2
18/09/2021	06:04	ABP21308_TR05	Still	ABP21308_TR05_001	NA		434 469.0	7 297 062.0	434 469.0	7 297 062.0	0.0
18/09/2021	06:06	ABP21308_TR05	Still	ABP21308_TR05_002	NA		434 469.0	7 297 062.0	434 469.0	7 297 107.2	45.2
18/09/2021	06:07	ABP21308_TR05	Still	ABP21308_TR05_003	NA		434 469.0	7 297 062.0	434 470.0	7 297 134.1	72.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	06:08	ABP21308_TR05	Still	ABP21308_TR05_004	NA		434 469.0	7 297 062.0	434 469.6	7 297 140.1	78.1
18/09/2021	06:08	ABP21308_TR05	Still	ABP21308_TR05_005	NA		434 469.0	7 297 062.0	434 469.8	7 297 142.9	80.9
18/09/2021	06:08	ABP21308_TR05	Still	ABP21308_TR05_006	NA		434 469.0	7 297 062.0	434 470.4	7 297 148.7	86.7
18/09/2021	06:08	ABP21308_TR05	Still	ABP21308_TR05_007	NA		434 469.0	7 297 062.0	434 470.7	7 297 152.3	90.3
18/09/2021	06:09	ABP21308_TR05	Still	ABP21308_TR05_008	NA		434 469.0	7 297 062.0	434 470.3	7 297 158.2	96.2
18/09/2021	06:10	ABP21308_TR05	Still	ABP21308_TR05_009	NA		434 469.0	7 297 062.0	434 469.6	7 297 173.8	111.8
18/09/2021	06:10	ABP21308_TR05	Still	ABP21308_TR05_010	NA		434 469.0	7 297 062.0	434 469.9	7 297 178.2	116.2
18/09/2021	06:11	ABP21308_TR05	Still	ABP21308_TR05_011	NA		434 469.0	7 297 062.0	434 471.1	7 297 184.4	122.4
18/09/2021	06:11	ABP21308_TR05	Still	ABP21308_TR05_012	NA		434 469.0	7 297 062.0	434 471.6	7 297 190.0	128.0
18/09/2021	06:11	ABP21308_TR05	Still	ABP21308_TR05_013	NA		434 469.0	7 297 062.0	434 470.9	7 297 189.7	127.7
18/09/2021	06:11	ABP21308_TR05	Still	ABP21308_TR05_014	NA		434 469.0	7 297 062.0	434 475.0	7 297 194.7	132.8
18/09/2021	06:12	ABP21308_TR05	Still	ABP21308_TR05_015	NA		434 469.0	7 297 062.0	434 483.0	7 297 208.1	146.8
18/09/2021	06:13	ABP21308_TR05	Still	ABP21308_TR05_016	NA		434 469.0	7 297 062.0	434 493.0	7 297 222.9	162.7
18/09/2021	06:14	ABP21308_TR05	Still	ABP21308_TR05_017	NA		434 469.0	7 297 062.0	434 500.5	7 297 239.6	180.4
18/09/2021	06:15	ABP21308_TR05	Still	ABP21308_TR05_018	NA		434 469.0	7 297 062.0	434 478.1	7 297 261.7	199.9
18/09/2021	06:15	ABP21308_TR05	Still	ABP21308_TR05_019	NA		434 469.0	7 297 062.0	434 475.6	7 297 263.0	201.1
18/09/2021	06:15	ABP21308_TR05	Still	ABP21308_TR05_020	NA		434 469.0	7 297 062.0	434 473.4	7 297 264.1	202.1
18/09/2021	06:17	ABP21308_TR05	Still	ABP21308_TR05_021	NA		434 469.0	7 297 062.0	434 469.1	7 297 287.9	225.9
18/09/2021	06:18	ABP21308_TR05	Still	ABP21308_TR05_022	NA		434 469.0	7 297 062.0	434 469.4	7 297 297.8	235.8
18/09/2021	06:19	ABP21308_TR05	Still	ABP21308_TR05_023	NA		434 469.0	7 297 062.0	434 468.6	7 297 305.7	243.7
18/09/2021	06:19	ABP21308_TR05	Still	ABP21308_TR05_024	NA		434 469.0	7 297 062.0	434 470.4	7 297 312.7	250.7
18/09/2021	06:19	ABP21308_TR05	Still	ABP21308_TR05_025	NA		434 469.0	7 297 062.0	434 470.7	7 297 313.5	251.5
18/09/2021	06:20	ABP21308_TR05	Still	ABP21308_TR05_026	NA		434 469.0	7 297 062.0	434 469.8	7 297 320.6	258.6
18/09/2021	06:20	ABP21308_TR05	Still	ABP21308_TR05_027	NA		434 469.0	7 297 062.0	434 469.7	7 297 325.6	263.6
18/09/2021	06:20	ABP21308_TR05	Still	ABP21308_TR05_028	NA		434 469.0	7 297 062.0	434 469.9	7 297 330.6	268.6
18/09/2021	06:20	ABP21308_TR05	Still	ABP21308_TR05_029	NA		434 469.0	7 297 062.0	434 469.9	7 297 335.2	273.2
18/09/2021	06:20	ABP21308_TR05	Still	ABP21308_TR05_030	NA		434 469.0	7 297 062.0	434 470.0	7 297 341.8	279.8
18/09/2021	06:22	ABP21308_TR05	Still	ABP21308_TR05_031	NA		434 469.0	7 297 062.0	434 470.5	7 297 364.3	302.3
18/09/2021	06:22	ABP21308_TR05	Still	ABP21308_TR05_032	NA		434 469.0	7 297 062.0	434 470.7	7 297 368.7	306.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	06:23	ABP21308_TR05	Still	ABP21308_TR05_033	NA		434 469.0	7 297 062.0	434 468.6	7 297 389.9	327.9
18/09/2021	06:24	ABP21308_TR05	Still	ABP21308_TR05_034	NA		434 469.0	7 297 062.0	434 469.3	7 297 403.1	341.1
18/09/2021	06:25	ABP21308_TR05	Still	ABP21308_TR05_035	NA		434 469.0	7 297 062.0	434 469.1	7 297 420.4	358.4
18/09/2021	06:25	ABP21308_TR05	Still	ABP21308_TR05_036	NA		434 469.0	7 297 062.0	434 469.1	7 297 430.3	368.3
18/09/2021	06:25	ABP21308_TR05	Still	ABP21308_TR05_037	NA		434 469.0	7 297 062.0	434 469.1	7 297 432.4	370.4
18/09/2021	06:28	ABP21308_TR05	Still	ABP21308_TR05_038	NA		434 469.0	7 297 062.0	434 469.5	7 297 471.6	409.6
18/09/2021	06:28	ABP21308_TR05	Still	ABP21308_TR05_039	NA		434 469.0	7 297 062.0	434 468.9	7 297 475.7	413.7
18/09/2021	06:28	ABP21308_TR05	Still	ABP21308_TR05_040	NA		434 469.0	7 297 062.0	434 469.0	7 297 479.1	417.1
18/09/2021	06:30	ABP21308_TR05	Still	ABP21308_TR05_041	NA		434 469.0	7 297 062.0	434 481.7	7 297 499.5	437.7
18/09/2021	06:30	ABP21308_TR05	Still	ABP21308_TR05_042	NA		434 469.0	7 297 062.0	434 482.3	7 297 500.0	438.2
18/09/2021	06:30	ABP21308_TR05	Still	ABP21308_TR05_043	NA		434 469.0	7 297 062.0	434 483.5	7 297 502.9	441.1
18/09/2021	06:31	ABP21308_TR05	Still	ABP21308_TR05_044	NA		434 469.0	7 297 062.0	434 486.2	7 297 503.8	442.1
18/09/2021	06:33	ABP21308_TR05	Still	ABP21308_TR05_045	NA		434 469.0	7 297 062.0	434 467.6	7 297 531.7	469.7
18/09/2021	06:34	ABP21308_TR05	Still	ABP21308_TR05_046	NA		434 469.0	7 297 062.0	434 469.0	7 297 562.0	500.0
18/09/2021	06:34	ABP21308_TR05	Video	EOL	38	336.7	434 469.0	7 297 062.0	434 469.6	7 297 562.5	500.5
18/09/2021	06:36	ABP21308_TR06	Video	SOL	39	337.5	434 469.0	7 297 562.0	434 471.9	7 297 561.1	3.0
18/09/2021	06:36	ABP21308_TR06	Still	ABP21308_TR06_001	NA		434 469.0	7 297 562.0	434 473.0	7 297 561.7	4.0
18/09/2021	06:38	ABP21308_TR06	Still	ABP21308_TR06_002	NA		434 469.0	7 297 562.0	434 462.7	7 297 556.2	8.6
18/09/2021	06:38	ABP21308_TR06	Still	ABP21308_TR06_003	NA		434 469.0	7 297 562.0	434 461.3	7 297 553.1	11.8
18/09/2021	06:38	ABP21308_TR06	Still	ABP21308_TR06_004	NA		434 469.0	7 297 562.0	434 458.5	7 297 550.8	15.4
18/09/2021	06:39	ABP21308_TR06	Still	ABP21308_TR06_005	NA		434 469.0	7 297 562.0	434 454.3	7 297 545.3	22.2
18/09/2021	06:39	ABP21308_TR06	Still	ABP21308_TR06_006	NA		434 469.0	7 297 562.0	434 449.9	7 297 541.4	28.1
18/09/2021	06:39	ABP21308_TR06	Still	ABP21308_TR06_007	NA		434 469.0	7 297 562.0	434 443.7	7 297 534.7	37.2
18/09/2021	06:40	ABP21308_TR06	Still	ABP21308_TR06_008	NA		434 469.0	7 297 562.0	434 439.8	7 297 532.4	41.6
18/09/2021	06:41	ABP21308_TR06	Still	ABP21308_TR06_009	NA		434 469.0	7 297 562.0	434 430.0	7 297 524.0	54.5
18/09/2021	06:41	ABP21308_TR06	Still	ABP21308_TR06_010	NA		434 469.0	7 297 562.0	434 426.4	7 297 519.1	60.5
18/09/2021	06:42	ABP21308_TR06	Still	ABP21308_TR06_011	NA		434 469.0	7 297 562.0	434 418.2	7 297 508.2	74.0
18/09/2021	06:43	ABP21308_TR06	Still	ABP21308_TR06_012	NA		434 469.0	7 297 562.0	434 405.6	7 297 497.2	90.7
18/09/2021	06:43	ABP21308_TR06	Still	ABP21308_TR06_013	NA		434 469.0	7 297 562.0	434 403.1	7 297 495.0	94.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	06:43	ABP21308_TR06	Still	ABP21308_TR06_014	NA		434 469.0	7 297 562.0	434 403.5	7 297 492.5	95.5
18/09/2021	06:43	ABP21308_TR06	Still	ABP21308_TR06_015	NA		434 469.0	7 297 562.0	434 401.8	7 297 489.9	98.6
18/09/2021	06:44	ABP21308_TR06	Still	ABP21308_TR06_016	NA		434 469.0	7 297 562.0	434 393.2	7 297 485.5	107.7
18/09/2021	06:46	ABP21308_TR06	Still	ABP21308_TR06_017	NA		434 469.0	7 297 562.0	434 365.3	7 297 460.4	145.2
18/09/2021	06:46	ABP21308_TR06	Still	ABP21308_TR06_018	NA		434 469.0	7 297 562.0	434 362.3	7 297 459.3	148.1
18/09/2021	06:46	ABP21308_TR06	Still	ABP21308_TR06_019	NA		434 469.0	7 297 562.0	434 364.3	7 297 456.1	148.9
18/09/2021	06:46	ABP21308_TR06	Still	ABP21308_TR06_020	NA		434 469.0	7 297 562.0	434 362.0	7 297 455.3	151.1
18/09/2021	06:46	ABP21308_TR06	Still	ABP21308_TR06_021	NA		434 469.0	7 297 562.0	434 360.9	7 297 451.9	154.3
18/09/2021	06:47	ABP21308_TR06	Still	ABP21308_TR06_022	NA		434 469.0	7 297 562.0	434 344.6	7 297 442.2	172.7
18/09/2021	06:49	ABP21308_TR06	Still	ABP21308_TR06_023	NA		434 469.0	7 297 562.0	434 325.7	7 297 425.9	197.6
18/09/2021	06:49	ABP21308_TR06	Still	ABP21308_TR06_024	NA		434 469.0	7 297 562.0	434 322.6	7 297 424.4	200.9
18/09/2021	06:49	ABP21308_TR06	Still	ABP21308_TR06_025	NA		434 469.0	7 297 562.0	434 321.6	7 297 424.2	201.8
18/09/2021	06:51	ABP21308_TR06	Still	ABP21308_TR06_026	NA		434 469.0	7 297 562.0	434 295.0	7 297 386.4	247.2
18/09/2021	06:52	ABP21308_TR06	Still	ABP21308_TR06_027	NA		434 469.0	7 297 562.0	434 290.5	7 297 375.9	257.9
18/09/2021	06:52	ABP21308_TR06	Still	ABP21308_TR06_028	NA		434 469.0	7 297 562.0	434 277.4	7 297 370.8	270.7
18/09/2021	06:55	ABP21308_TR06	Still	ABP21308_TR06_029	NA		434 469.0	7 297 562.0	434 241.7	7 297 333.1	322.6
18/09/2021	06:55	ABP21308_TR06	Still	ABP21308_TR06_030	NA		434 469.0	7 297 562.0	434 237.6	7 297 329.9	327.7
18/09/2021	06:55	ABP21308_TR06	Still	ABP21308_TR06_031	NA		434 469.0	7 297 562.0	434 237.1	7 297 329.5	328.4
18/09/2021	06:56	ABP21308_TR06	Still	ABP21308_TR06_032	NA		434 469.0	7 297 562.0	434 233.7	7 297 327.1	332.5
18/09/2021	06:56	ABP21308_TR06	Still	ABP21308_TR06_033	NA		434 469.0	7 297 562.0	434 234.5	7 297 326.2	332.6
18/09/2021	06:56	ABP21308_TR06	Still	ABP21308_TR06_034	NA		434 469.0	7 297 562.0	434 235.1	7 297 326.0	332.3
18/09/2021	06:56	ABP21308_TR06	Still	ABP21308_TR06_035	NA		434 469.0	7 297 562.0	434 236.2	7 297 325.1	332.1
18/09/2021	06:56	ABP21308_TR06	Still	ABP21308_TR06_036	NA		434 469.0	7 297 562.0	434 237.2	7 297 324.6	331.8
18/09/2021	06:57	ABP21308_TR06	Still	ABP21308_TR06_037	NA		434 469.0	7 297 562.0	434 219.8	7 297 311.8	353.1
18/09/2021	06:58	ABP21308_TR06	Video	EOL	40	333.8	434 469.0	7 297 562.0	434 219.5	7 297 311.1	353.8
16/09/2021	21:00	ABP21308_TR07	Video	SOL	7	334.3	434 386.0	7 298 602.0	434 386.6	7 298 604.4	2.5
16/09/2021	21:01	ABP21308_TR07	Still	ABP21308_TR07_001	NA		434 386.0	7 298 602.0	434 385.6	7 298 578.7	23.3
16/09/2021	21:01	ABP21308_TR07	Still	ABP21308_TR07_002	NA		434 386.0	7 298 602.0	434 384.9	7 298 575.2	26.8
16/09/2021	21:02	ABP21308_TR07	Still	ABP21308_TR07_003	NA		434 386.0	7 298 602.0	434 381.8	7 298 558.1	44.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	21:03	ABP21308_TR07	Still	ABP21308_TR07_004	NA		434 386.0	7 298 602.0	434 389.1	7 298 547.4	54.7
16/09/2021	21:04	ABP21308_TR07	Still	ABP21308_TR07_005	NA		434 386.0	7 298 602.0	434 395.5	7 298 542.0	60.7
16/09/2021	21:05	ABP21308_TR07	Still	ABP21308_TR07_006	NA		434 386.0	7 298 602.0	434 389.5	7 298 531.4	70.7
16/09/2021	21:05	ABP21308_TR07	Still	ABP21308_TR07_007	NA		434 386.0	7 298 602.0	434 382.5	7 298 519.2	82.9
16/09/2021	21:06	ABP21308_TR07	Still	ABP21308_TR07_008	NA		434 386.0	7 298 602.0	434 381.9	7 298 501.5	100.6
16/09/2021	21:07	ABP21308_TR07	Still	ABP21308_TR07_009	NA		434 386.0	7 298 602.0	434 373.5	7 298 483.6	119.1
16/09/2021	21:07	ABP21308_TR07	Still	ABP21308_TR07_010	NA		434 386.0	7 298 602.0	434 373.4	7 298 483.3	119.4
16/09/2021	21:08	ABP21308_TR07	Still	ABP21308_TR07_011	NA		434 386.0	7 298 602.0	434 379.8	7 298 467.7	134.4
16/09/2021	21:08	ABP21308_TR07	Still	ABP21308_TR07_012	NA		434 386.0	7 298 602.0	434 381.8	7 298 465.9	136.2
16/09/2021	21:09	ABP21308_TR07	Still	ABP21308_TR07_013	NA		434 386.0	7 298 602.0	434 388.0	7 298 466.8	135.2
16/09/2021	21:09	ABP21308_TR07	Still	ABP21308_TR07_014	NA		434 386.0	7 298 602.0	434 387.1	7 298 455.1	146.9
16/09/2021	21:09	ABP21308_TR07	Still	ABP21308_TR07_015	NA		434 386.0	7 298 602.0	434 389.6	7 298 452.4	149.6
16/09/2021	21:09	ABP21308_TR07	Still	ABP21308_TR07_016	NA		434 386.0	7 298 602.0	434 390.6	7 298 452.8	149.3
16/09/2021	21:10	ABP21308_TR07	Still	ABP21308_TR07_017	NA		434 386.0	7 298 602.0	434 394.7	7 298 453.3	149.0
16/09/2021	21:10	ABP21308_TR07	Still	ABP21308_TR07_018	NA		434 386.0	7 298 602.0	434 398.0	7 298 450.7	151.8
16/09/2021	21:10	ABP21308_TR07	Still	ABP21308_TR07_019	NA		434 386.0	7 298 602.0	434 391.3	7 298 447.3	154.8
16/09/2021	21:12	ABP21308_TR07	Still	ABP21308_TR07_020	NA		434 386.0	7 298 602.0	434 381.7	7 298 419.9	182.2
16/09/2021	21:13	ABP21308_TR07	Still	ABP21308_TR07_021	NA		434 386.0	7 298 602.0	434 375.1	7 298 401.5	200.8
16/09/2021	21:13	ABP21308_TR07	Still	ABP21308_TR07_022	NA		434 386.0	7 298 602.0	434 373.6	7 298 400.2	202.2
16/09/2021	21:14	ABP21308_TR07	Still	ABP21308_TR07_023	NA		434 386.0	7 298 602.0	434 372.5	7 298 387.5	214.9
16/09/2021	21:14	ABP21308_TR07	Still	ABP21308_TR07_024	NA		434 386.0	7 298 602.0	434 373.5	7 298 385.5	216.9
16/09/2021	21:14	ABP21308_TR07	Still	ABP21308_TR07_025	NA		434 386.0	7 298 602.0	434 373.4	7 298 383.6	218.8
16/09/2021	21:14	ABP21308_TR07	Still	ABP21308_TR07_026	NA		434 386.0	7 298 602.0	434 373.3	7 298 382.3	220.1
16/09/2021	21:17	ABP21308_TR07	Still	ABP21308_TR07_027	NA		434 386.0	7 298 602.0	434 380.3	7 298 416.2	185.9
16/09/2021	21:17	ABP21308_TR07	Still	ABP21308_TR07_028	NA		434 386.0	7 298 602.0	434 382.2	7 298 417.0	185.0
16/09/2021	21:18	ABP21308_TR07	Still	ABP21308_TR07_029	NA		434 386.0	7 298 602.0	434 388.7	7 298 421.9	180.1
16/09/2021	21:18	ABP21308_TR07	Still	ABP21308_TR07_030	NA		434 386.0	7 298 602.0	434 389.9	7 298 423.0	179.0
16/09/2021	21:19	ABP21308_TR07	Still	ABP21308_TR07_031	NA		434 386.0	7 298 602.0	434 376.9	7 298 400.0	202.2
16/09/2021	21:20	ABP21308_TR07	Still	ABP21308_TR07_032	NA		434 386.0	7 298 602.0	434 376.0	7 298 388.2	214.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	21:21	ABP21308_TR07	Still	ABP21308_TR07_033	NA		434 386.0	7 298 602.0	434 380.5	7 298 371.5	230.6
16/09/2021	21:21	ABP21308_TR07	Still	ABP21308_TR07_034	NA		434 386.0	7 298 602.0	434 380.5	7 298 367.6	234.5
16/09/2021	21:21	ABP21308_TR07	Video	EOL	8	332.3	434 386.0	7 298 602.0	434 377.8	7 298 364.2	237.9
16/09/2021	21:36	ABP21308_TR08	Video	SOL	9	343.3	434 425.0	7 298 136.0	434 426.0	7 298 139.1	3.3
16/09/2021	21:37	ABP21308_TR08	Still	ABP21308_TR08_001	NA		434 425.0	7 298 136.0	434 423.6	7 298 123.5	12.6
16/09/2021	21:37	ABP21308_TR08	Still	ABP21308_TR08_002	NA		434 425.0	7 298 136.0	434 423.6	7 298 123.1	13.0
16/09/2021	21:37	ABP21308_TR08	Still	ABP21308_TR08_003	NA		434 425.0	7 298 136.0	434 423.8	7 298 122.9	13.2
16/09/2021	21:37	ABP21308_TR08	Still	ABP21308_TR08_004	NA		434 425.0	7 298 136.0	434 420.9	7 298 119.7	16.8
16/09/2021	21:37	ABP21308_TR08	Still	ABP21308_TR08_005	NA		434 425.0	7 298 136.0	434 420.3	7 298 116.8	19.8
16/09/2021	21:38	ABP21308_TR08	Still	ABP21308_TR08_006	NA		434 425.0	7 298 136.0	434 423.5	7 298 113.3	22.7
16/09/2021	21:38	ABP21308_TR08	Still	ABP21308_TR08_007	NA		434 425.0	7 298 136.0	434 425.8	7 298 108.5	27.5
16/09/2021	21:38	ABP21308_TR08	Still	ABP21308_TR08_008	NA		434 425.0	7 298 136.0	434 425.1	7 298 105.4	30.6
16/09/2021	21:38	ABP21308_TR08	Still	ABP21308_TR08_009	NA		434 425.0	7 298 136.0	434 424.9	7 298 103.1	32.9
16/09/2021	21:38	ABP21308_TR08	Still	ABP21308_TR08_010	NA		434 425.0	7 298 136.0	434 425.6	7 298 101.0	35.0
16/09/2021	21:39	ABP21308_TR08	Still	ABP21308_TR08_011	NA		434 425.0	7 298 136.0	434 428.4	7 298 097.8	38.4
16/09/2021	21:39	ABP21308_TR08	Still	ABP21308_TR08_012	NA		434 425.0	7 298 136.0	434 426.3	7 298 093.7	42.3
16/09/2021	21:40	ABP21308_TR08	Still	ABP21308_TR08_013	NA		434 425.0	7 298 136.0	434 426.3	7 298 073.0	63.0
16/09/2021	21:40	ABP21308_TR08	Still	ABP21308_TR08_014	NA		434 425.0	7 298 136.0	434 427.6	7 298 071.9	64.2
16/09/2021	21:40	ABP21308_TR08	Still	ABP21308_TR08_015	NA		434 425.0	7 298 136.0	434 423.6	7 298 064.5	71.5
16/09/2021	21:41	ABP21308_TR08	Still	ABP21308_TR08_016	NA		434 425.0	7 298 136.0	434 419.8	7 298 063.1	73.1
16/09/2021	21:41	ABP21308_TR08	Still	ABP21308_TR08_017	NA		434 425.0	7 298 136.0	434 416.5	7 298 061.4	75.1
16/09/2021	21:41	ABP21308_TR08	Still	ABP21308_TR08_018	NA		434 425.0	7 298 136.0	434 414.2	7 298 059.4	77.4
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_019	NA		434 425.0	7 298 136.0	434 413.4	7 298 048.9	87.9
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_020	NA		434 425.0	7 298 136.0	434 418.5	7 298 042.9	93.3
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_021	NA		434 425.0	7 298 136.0	434 420.1	7 298 042.1	94.0
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_022	NA		434 425.0	7 298 136.0	434 420.2	7 298 040.6	95.5
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_023	NA		434 425.0	7 298 136.0	434 420.7	7 298 040.0	96.1
16/09/2021	21:42	ABP21308_TR08	Still	ABP21308_TR08_024	NA		434 425.0	7 298 136.0	434 420.1	7 298 038.4	97.7
16/09/2021	21:43	ABP21308_TR08	Still	ABP21308_TR08_025	NA		434 425.0	7 298 136.0	434 419.4	7 298 036.6	99.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	21:43	ABP21308_TR08	Still	ABP21308_TR08_026	NA		434 425.0	7 298 136.0	434 419.3	7 298 035.3	100.9
16/09/2021	21:43	ABP21308_TR08	Still	ABP21308_TR08_027	NA		434 425.0	7 298 136.0	434 421.3	7 298 032.3	103.8
16/09/2021	21:43	ABP21308_TR08	Still	ABP21308_TR08_028	NA		434 425.0	7 298 136.0	434 417.2	7 298 027.1	109.2
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_029	NA		434 425.0	7 298 136.0	434 409.0	7 298 023.0	114.1
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_030	NA		434 425.0	7 298 136.0	434 407.7	7 298 021.2	116.1
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_031	NA		434 425.0	7 298 136.0	434 407.2	7 298 020.4	117.0
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_032	NA		434 425.0	7 298 136.0	434 412.4	7 298 017.9	118.8
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_033	NA		434 425.0	7 298 136.0	434 416.4	7 298 017.2	119.1
16/09/2021	21:44	ABP21308_TR08	Still	ABP21308_TR08_034	NA		434 425.0	7 298 136.0	434 420.9	7 298 018.5	117.6
16/09/2021	21:45	ABP21308_TR08	Still	ABP21308_TR08_035	NA		434 425.0	7 298 136.0	434 424.0	7 298 021.0	115.0
16/09/2021	21:45	ABP21308_TR08	Still	ABP21308_TR08_036	NA		434 425.0	7 298 136.0	434 425.4	7 298 020.6	115.4
16/09/2021	21:45	ABP21308_TR08	Still	ABP21308_TR08_037	NA		434 425.0	7 298 136.0	434 419.8	7 298 016.5	119.6
16/09/2021	21:46	ABP21308_TR08	Still	ABP21308_TR08_038	NA		434 425.0	7 298 136.0	434 419.6	7 298 010.7	125.4
16/09/2021	21:46	ABP21308_TR08	Still	ABP21308_TR08_039	NA		434 425.0	7 298 136.0	434 423.5	7 298 005.4	130.6
16/09/2021	21:48	ABP21308_TR08	Still	ABP21308_TR08_040	NA		434 425.0	7 298 136.0	434 417.6	7 297 994.2	142.0
16/09/2021	21:50	ABP21308_TR08	Still	ABP21308_TR08_041	NA		434 425.0	7 298 136.0	434 425.0	7 297 959.2	176.8
16/09/2021	21:50	ABP21308_TR08	Still	ABP21308_TR08_042	NA		434 425.0	7 298 136.0	434 412.8	7 297 952.0	184.4
16/09/2021	21:50	ABP21308_TR08	Still	ABP21308_TR08_043	NA		434 425.0	7 298 136.0	434 409.0	7 297 953.2	183.5
16/09/2021	21:50	ABP21308_TR08	Still	ABP21308_TR08_044	NA		434 425.0	7 298 136.0	434 406.8	7 297 952.9	184.0
16/09/2021	21:51	ABP21308_TR08	Still	ABP21308_TR08_045	NA		434 425.0	7 298 136.0	434 405.3	7 297 954.0	183.1
16/09/2021	21:51	ABP21308_TR08	Still	ABP21308_TR08_046	NA		434 425.0	7 298 136.0	434 404.5	7 297 955.6	181.6
16/09/2021	21:51	ABP21308_TR08	Still	ABP21308_TR08_047	NA		434 425.0	7 298 136.0	434 392.0	7 297 949.6	189.3
16/09/2021	21:53	ABP21308_TR08	Video	EOL	10	335.1	434 425.0	7 298 136.0	434 417.9	7 297 935.8	200.3
16/09/2021	23:15	ABP21308_TR09	Video	SOL	13	327.6	434 911.0	7 298 527.0	434 910.1	7 298 528.6	1.8
16/09/2021	23:15	ABP21308_TR09	Still	ABP21308_TR09_001	NA		434 911.0	7 298 527.0	434 911.1	7 298 528.5	1.5
16/09/2021	23:17	ABP21308_TR09	Still	ABP21308_TR09_002	NA		434 911.0	7 298 527.0	434 915.3	7 298 525.1	4.7
16/09/2021	23:18	ABP21308_TR09	Still	ABP21308_TR09_003	NA		434 911.0	7 298 527.0	434 944.9	7 298 519.7	34.7
16/09/2021	23:18	ABP21308_TR09	Still	ABP21308_TR09_004	NA		434 911.0	7 298 527.0	434 945.7	7 298 519.5	35.5
16/09/2021	23:18	ABP21308_TR09	Still	ABP21308_TR09_005	NA		434 911.0	7 298 527.0	434 945.9	7 298 519.5	35.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	23:18	ABP21308_TR09	Still	ABP21308_TR09_006	NA		434 911.0	7 298 527.0	434 946.3	7 298 521.7	35.7
16/09/2021	23:18	ABP21308_TR09	Still	ABP21308_TR09_007	NA		434 911.0	7 298 527.0	434 946.7	7 298 521.2	36.2
16/09/2021	23:19	ABP21308_TR09	Still	ABP21308_TR09_008	NA		434 911.0	7 298 527.0	434 951.1	7 298 527.5	40.1
16/09/2021	23:19	ABP21308_TR09	Still	ABP21308_TR09_009	NA		434 911.0	7 298 527.0	434 953.4	7 298 530.8	42.6
16/09/2021	23:20	ABP21308_TR09	Still	ABP21308_TR09_010	NA		434 911.0	7 298 527.0	434 959.9	7 298 524.6	49.0
16/09/2021	23:20	ABP21308_TR09	Still	ABP21308_TR09_011	NA		434 911.0	7 298 527.0	434 962.3	7 298 523.5	51.4
16/09/2021	23:20	ABP21308_TR09	Still	ABP21308_TR09_012	NA		434 911.0	7 298 527.0	434 963.4	7 298 522.7	52.6
16/09/2021	23:20	ABP21308_TR09	Still	ABP21308_TR09_013	NA		434 911.0	7 298 527.0	434 965.0	7 298 521.8	54.2
16/09/2021	23:21	ABP21308_TR09	Still	ABP21308_TR09_014	NA		434 911.0	7 298 527.0	434 973.7	7 298 512.9	64.3
16/09/2021	23:21	ABP21308_TR09	Still	ABP21308_TR09_015	NA		434 911.0	7 298 527.0	434 981.0	7 298 508.4	72.4
16/09/2021	23:21	ABP21308_TR09	Still	ABP21308_TR09_016	NA		434 911.0	7 298 527.0	434 981.9	7 298 503.8	74.6
16/09/2021	23:22	ABP21308_TR09	Still	ABP21308_TR09_017	NA		434 911.0	7 298 527.0	434 987.5	7 298 497.2	82.1
16/09/2021	23:22	ABP21308_TR09	Still	ABP21308_TR09_018	NA		434 911.0	7 298 527.0	434 990.0	7 298 497.8	84.2
16/09/2021	23:22	ABP21308_TR09	Still	ABP21308_TR09_019	NA		434 911.0	7 298 527.0	434 991.0	7 298 497.9	85.1
16/09/2021	23:22	ABP21308_TR09	Still	ABP21308_TR09_020	NA		434 911.0	7 298 527.0	434 991.3	7 298 498.1	85.3
16/09/2021	23:23	ABP21308_TR09	Still	ABP21308_TR09_021	NA		434 911.0	7 298 527.0	434 991.2	7 298 497.9	85.3
16/09/2021	23:24	ABP21308_TR09	Still	ABP21308_TR09_022	NA		434 911.0	7 298 527.0	435 012.1	7 298 490.7	107.4
16/09/2021	23:24	ABP21308_TR09	Still	ABP21308_TR09_023	NA		434 911.0	7 298 527.0	435 013.3	7 298 490.2	108.7
16/09/2021	23:25	ABP21308_TR09	Still	ABP21308_TR09_024	NA		434 911.0	7 298 527.0	435 019.9	7 298 479.1	119.0
16/09/2021	23:26	ABP21308_TR09	Still	ABP21308_TR09_025	NA		434 911.0	7 298 527.0	435 034.9	7 298 484.0	131.1
16/09/2021	23:26	ABP21308_TR09	Still	ABP21308_TR09_026	NA		434 911.0	7 298 527.0	435 037.4	7 298 483.4	133.7
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_027	NA		434 911.0	7 298 527.0	435 040.1	7 298 483.8	136.1
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_028	NA		434 911.0	7 298 527.0	435 040.5	7 298 484.4	136.3
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_029	NA		434 911.0	7 298 527.0	435 038.8	7 298 484.0	134.8
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_030	NA		434 911.0	7 298 527.0	435 038.0	7 298 484.0	134.1
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_031	NA		434 911.0	7 298 527.0	435 035.3	7 298 486.1	130.9
16/09/2021	23:27	ABP21308_TR09	Still	ABP21308_TR09_032	NA		434 911.0	7 298 527.0	435 035.2	7 298 487.1	130.5
16/09/2021	23:29	ABP21308_TR09	Still	ABP21308_TR09_033	NA		434 911.0	7 298 527.0	435 053.6	7 298 497.7	145.6
16/09/2021	23:29	ABP21308_TR09	Still	ABP21308_TR09_034	NA		434 911.0	7 298 527.0	435 055.4	7 298 500.9	146.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	23:30	ABP21308_TR09	Still	ABP21308_TR09_035	NA		434 911.0	7 298 527.0	435 064.0	7 298 499.8	155.4
16/09/2021	23:31	ABP21308_TR09	Still	ABP21308_TR09_036	NA		434 911.0	7 298 527.0	435 073.2	7 298 480.4	168.8
16/09/2021	23:31	ABP21308_TR09	Still	ABP21308_TR09_037	NA		434 911.0	7 298 527.0	435 076.3	7 298 472.0	174.2
16/09/2021	23:32	ABP21308_TR09	Still	ABP21308_TR09_038	NA		434 911.0	7 298 527.0	435 082.3	7 298 464.6	182.3
16/09/2021	23:33	ABP21308_TR09	Still	ABP21308_TR09_039	NA		434 911.0	7 298 527.0	435 102.5	7 298 454.8	204.7
16/09/2021	23:33	ABP21308_TR09	Still	ABP21308_TR09_040	NA		434 911.0	7 298 527.0	435 099.7	7 298 447.8	204.6
16/09/2021	23:33	ABP21308_TR09	Still	ABP21308_TR09_041	NA		434 911.0	7 298 527.0	435 100.6	7 298 447.1	205.7
16/09/2021	23:33	ABP21308_TR09	Still	ABP21308_TR09_042	NA		434 911.0	7 298 527.0	435 101.2	7 298 446.5	206.5
16/09/2021	23:34	ABP21308_TR09	Still	ABP21308_TR09_043	NA		434 911.0	7 298 527.0	435 102.9	7 298 446.6	208.1
16/09/2021	23:34	ABP21308_TR09	Still	ABP21308_TR09_044	NA		434 911.0	7 298 527.0	435 107.6	7 298 436.6	216.4
16/09/2021	23:35	ABP21308_TR09	Still	ABP21308_TR09_045	NA		434 911.0	7 298 527.0	435 104.0	7 298 432.5	214.9
16/09/2021	23:35	ABP21308_TR09	Still	ABP21308_TR09_046	NA		434 911.0	7 298 527.0	435 100.5	7 298 427.9	213.8
16/09/2021	23:35	ABP21308_TR09	Still	ABP21308_TR09_047	NA		434 911.0	7 298 527.0	435 104.1	7 298 425.3	218.2
16/09/2021	23:36	ABP21308_TR09	Still	ABP21308_TR09_048	NA		434 911.0	7 298 527.0	435 105.3	7 298 424.7	219.6
16/09/2021	23:36	ABP21308_TR09	Still	ABP21308_TR09_049	NA		434 911.0	7 298 527.0	435 105.0	7 298 422.0	220.6
16/09/2021	23:36	ABP21308_TR09	Still	ABP21308_TR09_050	NA		434 911.0	7 298 527.0	435 106.0	7 298 423.0	221.0
16/09/2021	23:36	ABP21308_TR09	Video	EOL	14	327.1	434 911.0	7 298 527.0	435 105.9	7 298 422.5	221.1
16/09/2021	22:12	ABP21308_TR10	Video	SOL	11	328.6	434 678.0	7 297 751.0	434 676.8	7 297 754.5	3.7
16/09/2021	22:13	ABP21308_TR10	Still	ABP21308_TR10_001	NA		434 678.0	7 297 751.0	434 679.0	7 297 752.6	1.9
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_002	NA		434 678.0	7 297 751.0	434 688.6	7 297 740.1	15.2
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_003	NA		434 678.0	7 297 751.0	434 688.9	7 297 738.8	16.4
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_004	NA		434 678.0	7 297 751.0	434 687.5	7 297 735.1	18.5
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_005	NA		434 678.0	7 297 751.0	434 687.1	7 297 734.0	19.3
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_006	NA		434 678.0	7 297 751.0	434 685.7	7 297 733.1	19.5
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_007	NA		434 678.0	7 297 751.0	434 684.6	7 297 732.4	19.7
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_008	NA		434 678.0	7 297 751.0	434 681.6	7 297 732.5	18.8
16/09/2021	22:14	ABP21308_TR10	Still	ABP21308_TR10_009	NA		434 678.0	7 297 751.0	434 680.3	7 297 730.9	20.2
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_010	NA		434 678.0	7 297 751.0	434 679.1	7 297 729.2	21.8
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_011	NA		434 678.0	7 297 751.0	434 678.9	7 297 727.9	23.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_012	NA		434 678.0	7 297 751.0	434 677.7	7 297 726.5	24.5
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_013	NA		434 678.0	7 297 751.0	434 677.2	7 297 726.1	24.9
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_014	NA		434 678.0	7 297 751.0	434 675.5	7 297 726.8	24.3
16/09/2021	22:15	ABP21308_TR10	Still	ABP21308_TR10_015	NA		434 678.0	7 297 751.0	434 674.4	7 297 727.1	24.2
16/09/2021	22:16	ABP21308_TR10	Still	ABP21308_TR10_016	NA		434 678.0	7 297 751.0	434 683.3	7 297 719.3	32.1
16/09/2021	22:16	ABP21308_TR10	Still	ABP21308_TR10_017	NA		434 678.0	7 297 751.0	434 684.2	7 297 720.2	31.4
16/09/2021	22:16	ABP21308_TR10	Still	ABP21308_TR10_018	NA		434 678.0	7 297 751.0	434 687.6	7 297 721.3	31.2
16/09/2021	22:18	ABP21308_TR10	Still	ABP21308_TR10_019	NA		434 678.0	7 297 751.0	434 694.9	7 297 712.5	42.0
16/09/2021	22:18	ABP21308_TR10	Still	ABP21308_TR10_020	NA		434 678.0	7 297 751.0	434 694.6	7 297 712.2	42.2
16/09/2021	22:18	ABP21308_TR10	Still	ABP21308_TR10_021	NA		434 678.0	7 297 751.0	434 692.2	7 297 706.0	47.2
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_022	NA		434 678.0	7 297 751.0	434 691.5	7 297 703.3	49.6
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_023	NA		434 678.0	7 297 751.0	434 693.7	7 297 703.0	50.5
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_024	NA		434 678.0	7 297 751.0	434 695.2	7 297 703.2	50.8
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_025	NA		434 678.0	7 297 751.0	434 696.4	7 297 703.7	50.8
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_026	NA		434 678.0	7 297 751.0	434 697.3	7 297 704.0	50.8
16/09/2021	22:19	ABP21308_TR10	Still	ABP21308_TR10_027	NA		434 678.0	7 297 751.0	434 698.6	7 297 703.7	51.6
16/09/2021	22:20	ABP21308_TR10	Still	ABP21308_TR10_028	NA		434 678.0	7 297 751.0	434 699.1	7 297 697.3	57.7
16/09/2021	22:21	ABP21308_TR10	Still	ABP21308_TR10_029	NA		434 678.0	7 297 751.0	434 692.4	7 297 692.4	60.3
16/09/2021	22:21	ABP21308_TR10	Still	ABP21308_TR10_030	NA		434 678.0	7 297 751.0	434 690.1	7 297 691.7	60.5
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_031	NA		434 678.0	7 297 751.0	434 726.9	7 297 704.6	67.4
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_032	NA		434 678.0	7 297 751.0	434 728.6	7 297 704.4	68.8
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_033	NA		434 678.0	7 297 751.0	434 729.7	7 297 704.0	69.9
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_034	NA		434 678.0	7 297 751.0	434 733.0	7 297 698.4	76.1
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_035	NA		434 678.0	7 297 751.0	434 733.1	7 297 697.6	76.7
16/09/2021	22:23	ABP21308_TR10	Still	ABP21308_TR10_036	NA		434 678.0	7 297 751.0	434 733.3	7 297 697.2	77.2
16/09/2021	22:24	ABP21308_TR10	Still	ABP21308_TR10_037	NA		434 678.0	7 297 751.0	434 735.1	7 297 696.0	79.3
16/09/2021	22:24	ABP21308_TR10	Still	ABP21308_TR10_038	NA		434 678.0	7 297 751.0	434 735.4	7 297 695.2	80.1
16/09/2021	22:25	ABP21308_TR10	Still	ABP21308_TR10_039	NA		434 678.0	7 297 751.0	434 744.8	7 297 669.1	105.7
16/09/2021	22:26	ABP21308_TR10	Still	ABP21308_TR10_040	NA		434 678.0	7 297 751.0	434 739.7	7 297 661.7	108.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
16/09/2021	22:26	ABP21308_TR10	Still	ABP21308_TR10_041	NA		434 678.0	7 297 751.0	434 739.9	7 297 660.9	109.3
16/09/2021	22:27	ABP21308_TR10	Still	ABP21308_TR10_042	NA		434 678.0	7 297 751.0	434 728.4	7 297 652.3	110.8
16/09/2021	22:27	ABP21308_TR10	Still	ABP21308_TR10_043	NA		434 678.0	7 297 751.0	434 727.8	7 297 652.0	110.8
16/09/2021	22:27	ABP21308_TR10	Still	ABP21308_TR10_044	NA		434 678.0	7 297 751.0	434 726.2	7 297 651.0	111.0
16/09/2021	22:28	ABP21308_TR10	Still	ABP21308_TR10_045	NA		434 678.0	7 297 751.0	434 724.9	7 297 647.0	114.1
16/09/2021	22:28	ABP21308_TR10	Still	ABP21308_TR10_046	NA		434 678.0	7 297 751.0	434 724.9	7 297 646.4	114.6
16/09/2021	22:28	ABP21308_TR10	Still	ABP21308_TR10_047	NA		434 678.0	7 297 751.0	434 725.0	7 297 644.3	116.6
16/09/2021	22:29	ABP21308_TR10	Still	ABP21308_TR10_048	NA		434 678.0	7 297 751.0	434 722.2	7 297 643.0	116.7
16/09/2021	22:31	ABP21308_TR10	Still	ABP21308_TR10_049	NA		434 678.0	7 297 751.0	434 754.4	7 297 623.3	148.8
16/09/2021	22:32	ABP21308_TR10	Still	ABP21308_TR10_050	NA		434 678.0	7 297 751.0	434 765.2	7 297 627.3	151.3
16/09/2021	22:32	ABP21308_TR10	Still	ABP21308_TR10_051	NA		434 678.0	7 297 751.0	434 771.5	7 297 627.2	155.1
16/09/2021	22:32	ABP21308_TR10	Still	ABP21308_TR10_052	NA		434 678.0	7 297 751.0	434 774.5	7 297 624.9	158.8
16/09/2021	22:34	ABP21308_TR10	Still	ABP21308_TR10_053	NA		434 678.0	7 297 751.0	434 806.0	7 297 614.0	187.5
16/09/2021	22:34	ABP21308_TR10	Video	EOL	12	332.9	434 678.0	7 297 751.0	434 806.7	7 297 614.4	187.7
18/09/2021	05:20	ABP21308_TR11	Video	SOL	35	341.4	434 135.0	7 297 470.0	434 142.1	7 297 467.3	7.6
18/09/2021	05:20	ABP21308_TR11	Still	ABP21308_TR11_001	NA		434 135.0	7 297 470.0	434 140.0	7 297 467.0	5.8
18/09/2021	05:21	ABP21308_TR11	Still	ABP21308_TR11_002	NA		434 135.0	7 297 470.0	434 161.9	7 297 443.5	37.8
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_003	NA		434 135.0	7 297 470.0	434 162.2	7 297 443.1	38.3
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_004	NA		434 135.0	7 297 470.0	434 163.0	7 297 442.3	39.4
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_005	NA		434 135.0	7 297 470.0	434 164.0	7 297 442.0	40.3
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_006	NA		434 135.0	7 297 470.0	434 165.3	7 297 441.3	41.7
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_007	NA		434 135.0	7 297 470.0	434 175.7	7 297 434.9	53.7
18/09/2021	05:22	ABP21308_TR11	Still	ABP21308_TR11_008	NA		434 135.0	7 297 470.0	434 176.2	7 297 433.6	55.0
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_009	NA		434 135.0	7 297 470.0	434 175.3	7 297 432.0	55.4
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_010	NA		434 135.0	7 297 470.0	434 177.5	7 297 431.3	57.5
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_011	NA		434 135.0	7 297 470.0	434 176.0	7 297 426.5	59.8
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_012	NA		434 135.0	7 297 470.0	434 176.4	7 297 421.6	63.7
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_013	NA		434 135.0	7 297 470.0	434 176.1	7 297 421.8	63.3
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_014	NA		434 135.0	7 297 470.0	434 175.2	7 297 422.2	62.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_015	NA		434 135.0	7 297 470.0	434 173.4	7 297 422.5	61.1
18/09/2021	05:23	ABP21308_TR11	Still	ABP21308_TR11_016	NA		434 135.0	7 297 470.0	434 172.8	7 297 422.7	60.5
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_017	NA		434 135.0	7 297 470.0	434 172.4	7 297 422.8	60.2
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_018	NA		434 135.0	7 297 470.0	434 171.5	7 297 422.2	60.1
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_019	NA		434 135.0	7 297 470.0	434 170.6	7 297 421.7	60.0
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_020	NA		434 135.0	7 297 470.0	434 171.3	7 297 421.2	60.8
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_021	NA		434 135.0	7 297 470.0	434 170.2	7 297 420.0	61.1
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_022	NA		434 135.0	7 297 470.0	434 169.2	7 297 418.8	61.6
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_023	NA		434 135.0	7 297 470.0	434 170.1	7 297 418.3	62.5
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_024	NA		434 135.0	7 297 470.0	434 170.4	7 297 417.4	63.4
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_025	NA		434 135.0	7 297 470.0	434 170.5	7 297 416.5	64.2
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_026	NA		434 135.0	7 297 470.0	434 170.7	7 297 415.5	65.2
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_027	NA		434 135.0	7 297 470.0	434 171.5	7 297 415.1	65.9
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_028	NA		434 135.0	7 297 470.0	434 171.5	7 297 414.4	66.5
18/09/2021	05:24	ABP21308_TR11	Still	ABP21308_TR11_029	NA		434 135.0	7 297 470.0	434 173.5	7 297 413.9	68.0
18/09/2021	05:25	ABP21308_TR11	Still	ABP21308_TR11_030	NA		434 135.0	7 297 470.0	434 174.7	7 297 414.4	68.3
18/09/2021	05:25	ABP21308_TR11	Still	ABP21308_TR11_031	NA		434 135.0	7 297 470.0	434 172.7	7 297 402.8	77.1
18/09/2021	05:25	ABP21308_TR11	Still	ABP21308_TR11_032	NA		434 135.0	7 297 470.0	434 171.2	7 297 400.6	78.3
18/09/2021	05:26	ABP21308_TR11	Still	ABP21308_TR11_033	NA		434 135.0	7 297 470.0	434 170.8	7 297 398.0	80.4
18/09/2021	05:26	ABP21308_TR11	Still	ABP21308_TR11_034	NA		434 135.0	7 297 470.0	434 171.6	7 297 394.9	83.5
18/09/2021	05:26	ABP21308_TR11	Still	ABP21308_TR11_035	NA		434 135.0	7 297 470.0	434 172.2	7 297 392.2	86.2
18/09/2021	05:26	ABP21308_TR11	Still	ABP21308_TR11_036	NA		434 135.0	7 297 470.0	434 169.8	7 297 386.4	90.6
18/09/2021	05:27	ABP21308_TR11	Still	ABP21308_TR11_037	NA		434 135.0	7 297 470.0	434 158.9	7 297 383.5	89.7
18/09/2021	05:27	ABP21308_TR11	Still	ABP21308_TR11_038	NA		434 135.0	7 297 470.0	434 157.1	7 297 381.6	91.1
18/09/2021	05:27	ABP21308_TR11	Still	ABP21308_TR11_039	NA		434 135.0	7 297 470.0	434 151.3	7 297 373.7	97.7
18/09/2021	05:28	ABP21308_TR11	Still	ABP21308_TR11_040	NA		434 135.0	7 297 470.0	434 147.4	7 297 347.8	122.8
18/09/2021	05:30	ABP21308_TR11	Still	ABP21308_TR11_041	NA		434 135.0	7 297 470.0	434 138.2	7 297 327.9	142.1
18/09/2021	05:30	ABP21308_TR11	Still	ABP21308_TR11_042	NA		434 135.0	7 297 470.0	434 136.4	7 297 325.5	144.5
18/09/2021	05:30	ABP21308_TR11	Still	ABP21308_TR11_043	NA		434 135.0	7 297 470.0	434 133.9	7 297 321.1	148.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	05:30	ABP21308_TR11	Still	ABP21308_TR11_044	NA		434 135.0	7 297 470.0	434 135.2	7 297 314.3	155.7
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_045	NA		434 135.0	7 297 470.0	434 136.0	7 297 312.3	157.7
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_046	NA		434 135.0	7 297 470.0	434 137.6	7 297 308.0	162.0
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_047	NA		434 135.0	7 297 470.0	434 135.4	7 297 303.1	166.9
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_048	NA		434 135.0	7 297 470.0	434 133.8	7 297 297.2	172.8
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_049	NA		434 135.0	7 297 470.0	434 132.8	7 297 295.5	174.5
18/09/2021	05:31	ABP21308_TR11	Still	ABP21308_TR11_050	NA		434 135.0	7 297 470.0	434 131.6	7 297 294.1	175.9
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_051	NA		434 135.0	7 297 470.0	434 130.1	7 297 292.3	177.8
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_052	NA		434 135.0	7 297 470.0	434 129.9	7 297 291.7	178.4
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_053	NA		434 135.0	7 297 470.0	434 130.3	7 297 291.5	178.6
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_054	NA		434 135.0	7 297 470.0	434 129.6	7 297 290.2	179.9
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_055	NA		434 135.0	7 297 470.0	434 129.9	7 297 287.8	182.3
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_056	NA		434 135.0	7 297 470.0	434 131.1	7 297 285.9	184.1
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_057	NA		434 135.0	7 297 470.0	434 131.3	7 297 283.9	186.1
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_058	NA		434 135.0	7 297 470.0	434 133.1	7 297 282.2	187.8
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_059	NA		434 135.0	7 297 470.0	434 134.3	7 297 281.6	188.4
18/09/2021	05:32	ABP21308_TR11	Still	ABP21308_TR11_060	NA		434 135.0	7 297 470.0	434 134.9	7 297 281.4	188.6
18/09/2021	05:33	ABP21308_TR11	Still	ABP21308_TR11_061	NA		434 135.0	7 297 470.0	434 136.0	7 297 281.7	188.3
18/09/2021	05:33	ABP21308_TR11	Still	ABP21308_TR11_062	NA		434 135.0	7 297 470.0	434 137.2	7 297 281.8	188.2
18/09/2021	05:33	ABP21308_TR11	Still	ABP21308_TR11_063	NA		434 135.0	7 297 470.0	434 138.9	7 297 281.7	188.3
18/09/2021	05:34	ABP21308_TR11	Still	ABP21308_TR11_064	NA		434 135.0	7 297 470.0	434 131.7	7 297 278.1	191.9
18/09/2021	05:34	ABP21308_TR11	Still	ABP21308_TR11_065	NA		434 135.0	7 297 470.0	434 131.8	7 297 277.9	192.1
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_066	NA		434 135.0	7 297 470.0	434 134.0	7 297 278.5	191.5
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_067	NA		434 135.0	7 297 470.0	434 133.0	7 297 276.0	194.0
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_068	NA		434 135.0	7 297 470.0	434 126.8	7 297 270.0	200.2
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_069	NA		434 135.0	7 297 470.0	434 126.4	7 297 268.5	201.7
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_070	NA		434 135.0	7 297 470.0	434 125.8	7 297 267.8	202.4
18/09/2021	05:35	ABP21308_TR11	Still	ABP21308_TR11_071	NA		434 135.0	7 297 470.0	434 124.9	7 297 266.1	204.1
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_072	NA		434 135.0	7 297 470.0	434 123.3	7 297 264.4	205.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_073	NA		434 135.0	7 297 470.0	434 127.5	7 297 262.6	207.5
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_074	NA		434 135.0	7 297 470.0	434 128.0	7 297 262.4	207.7
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_075	NA		434 135.0	7 297 470.0	434 129.5	7 297 262.8	207.3
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_076	NA		434 135.0	7 297 470.0	434 134.4	7 297 261.9	208.1
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_077	NA		434 135.0	7 297 470.0	434 136.4	7 297 260.2	209.8
18/09/2021	05:36	ABP21308_TR11	Still	ABP21308_TR11_078	NA		434 135.0	7 297 470.0	434 135.9	7 297 257.0	213.0
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_079	NA		434 135.0	7 297 470.0	434 137.0	7 297 255.5	214.5
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_080	NA		434 135.0	7 297 470.0	434 136.9	7 297 253.6	216.4
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_081	NA		434 135.0	7 297 470.0	434 136.5	7 297 253.1	216.9
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_082	NA		434 135.0	7 297 470.0	434 137.9	7 297 252.6	217.4
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_083	NA		434 135.0	7 297 470.0	434 137.0	7 297 251.3	218.7
18/09/2021	05:37	ABP21308_TR11	Still	ABP21308_TR11_084	NA		434 135.0	7 297 470.0	434 136.2	7 297 250.6	219.4
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_085	NA		434 135.0	7 297 470.0	434 138.9	7 297 243.1	226.9
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_086	NA		434 135.0	7 297 470.0	434 138.0	7 297 240.6	229.4
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_087	NA		434 135.0	7 297 470.0	434 137.9	7 297 240.2	229.8
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_088	NA		434 135.0	7 297 470.0	434 138.0	7 297 238.9	231.1
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_089	NA		434 135.0	7 297 470.0	434 137.5	7 297 236.0	234.0
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_090	NA		434 135.0	7 297 470.0	434 138.9	7 297 236.5	233.5
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_091	NA		434 135.0	7 297 470.0	434 139.4	7 297 234.7	235.3
18/09/2021	05:38	ABP21308_TR11	Still	ABP21308_TR11_092	NA		434 135.0	7 297 470.0	434 139.6	7 297 230.2	239.8
18/09/2021	05:39	ABP21308_TR11	Video	EOL	36	339.5	434 135.0	7 297 470.0	434 140.4	7 297 229.9	240.2
17/09/2021	03:36	ABP21308_TR13	Video	SOL	17	321.3	434 641.8	7 299 185.4	434 641.8	7 299 185.4	0.0
17/09/2021	03:36	ABP21308_TR13	Still	ABP21308_TR13_001	NA		434 641.8	7 299 185.4	434 641.6	7 299 187.2	1.8
17/09/2021	03:37	ABP21308_TR13	Still	ABP21308_TR13_002	NA		434 641.8	7 299 185.4	434 641.2	7 299 193.6	8.2
17/09/2021	03:37	ABP21308_TR13	Still	ABP21308_TR13_003	NA		434 641.8	7 299 185.4	434 641.8	7 299 193.7	8.3
17/09/2021	03:37	ABP21308_TR13	Still	ABP21308_TR13_004	NA		434 641.8	7 299 185.4	434 641.8	7 299 194.2	8.8
17/09/2021	03:38	ABP21308_TR13	Still	ABP21308_TR13_005	NA		434 641.8	7 299 185.4	434 640.2	7 299 206.3	21.0
17/09/2021	03:38	ABP21308_TR13	Still	ABP21308_TR13_006	NA		434 641.8	7 299 185.4	434 640.4	7 299 208.0	22.6
17/09/2021	03:38	ABP21308_TR13	Still	ABP21308_TR13_007	NA		434 641.8	7 299 185.4	434 639.3	7 299 218.6	33.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	03:39	ABP21308_TR13	Still	ABP21308_TR13_008	NA		434 641.8	7 299 185.4	434 638.9	7 299 224.9	39.6
17/09/2021	03:39	ABP21308_TR13	Still	ABP21308_TR13_009	NA		434 641.8	7 299 185.4	434 638.6	7 299 225.6	40.3
17/09/2021	03:39	ABP21308_TR13	Still	ABP21308_TR13_010	NA		434 641.8	7 299 185.4	434 639.2	7 299 227.6	42.3
17/09/2021	03:39	ABP21308_TR13	Still	ABP21308_TR13_011	NA		434 641.8	7 299 185.4	434 638.6	7 299 228.1	42.8
17/09/2021	03:41	ABP21308_TR13	Still	ABP21308_TR13_012	NA		434 641.8	7 299 185.4	434 639.1	7 299 265.3	79.9
17/09/2021	03:41	ABP21308_TR13	Still	ABP21308_TR13_013	NA		434 641.8	7 299 185.4	434 639.4	7 299 267.8	82.4
17/09/2021	03:41	ABP21308_TR13	Still	ABP21308_TR13_014	NA		434 641.8	7 299 185.4	434 639.3	7 299 270.9	85.5
17/09/2021	03:43	ABP21308_TR13	Still	ABP21308_TR13_015	NA		434 641.8	7 299 185.4	434 640.4	7 299 301.2	115.8
17/09/2021	03:43	ABP21308_TR13	Still	ABP21308_TR13_016	NA		434 641.8	7 299 185.4	434 640.2	7 299 306.9	121.5
17/09/2021	03:43	ABP21308_TR13	Still	ABP21308_TR13_017	NA		434 641.8	7 299 185.4	434 640.8	7 299 315.3	129.9
17/09/2021	03:44	ABP21308_TR13	Still	ABP21308_TR13_018	NA		434 641.8	7 299 185.4	434 641.6	7 299 331.0	145.6
17/09/2021	03:45	ABP21308_TR13	Still	ABP21308_TR13_019	NA		434 641.8	7 299 185.4	434 641.4	7 299 342.4	157.0
17/09/2021	03:45	ABP21308_TR13	Still	ABP21308_TR13_020	NA		434 641.8	7 299 185.4	434 641.7	7 299 347.5	162.1
17/09/2021	03:45	ABP21308_TR13	Still	ABP21308_TR13_021	NA		434 641.8	7 299 185.4	434 642.4	7 299 354.9	169.5
17/09/2021	03:46	ABP21308_TR13	Still	ABP21308_TR13_022	NA		434 641.8	7 299 185.4	434 642.4	7 299 356.0	170.6
17/09/2021	03:46	ABP21308_TR13	Still	ABP21308_TR13_023	NA		434 641.8	7 299 185.4	434 642.2	7 299 357.3	171.9
17/09/2021	03:46	ABP21308_TR13	Still	ABP21308_TR13_024	NA		434 641.8	7 299 185.4	434 642.3	7 299 359.6	174.2
17/09/2021	03:46	ABP21308_TR13	Still	ABP21308_TR13_025	NA		434 641.8	7 299 185.4	434 643.9	7 299 361.6	176.2
17/09/2021	03:46	ABP21308_TR13	Still	ABP21308_TR13_026	NA		434 641.8	7 299 185.4	434 644.5	7 299 362.5	177.1
17/09/2021	03:48	ABP21308_TR13	Still	ABP21308_TR13_027	NA		434 641.8	7 299 185.4	434 642.7	7 299 384.1	198.7
17/09/2021	03:49	ABP21308_TR13	Still	ABP21308_TR13_028	NA		434 641.8	7 299 185.4	434 637.9	7 299 396.3	210.9
17/09/2021	03:49	ABP21308_TR13	Still	ABP21308_TR13_029	NA		434 641.8	7 299 185.4	434 639.2	7 299 400.9	215.5
17/09/2021	03:49	ABP21308_TR13	Still	ABP21308_TR13_030	NA		434 641.8	7 299 185.4	434 640.2	7 299 402.4	217.0
17/09/2021	03:50	ABP21308_TR13	Still	ABP21308_TR13_031	NA		434 641.8	7 299 185.4	434 638.6	7 299 406.6	221.2
17/09/2021	03:50	ABP21308_TR13	Still	ABP21308_TR13_032	NA		434 641.8	7 299 185.4	434 637.6	7 299 411.4	226.0
17/09/2021	03:51	ABP21308_TR13	Still	ABP21308_TR13_033	NA		434 641.8	7 299 185.4	434 636.4	7 299 426.6	241.3
17/09/2021	03:52	ABP21308_TR13	Still	ABP21308_TR13_034	NA		434 641.8	7 299 185.4	434 637.4	7 299 437.3	251.9
17/09/2021	03:52	ABP21308_TR13	Still	ABP21308_TR13_035	NA		434 641.8	7 299 185.4	434 636.8	7 299 438.5	253.1
17/09/2021	03:52	ABP21308_TR13	Still	ABP21308_TR13_036	NA		434 641.8	7 299 185.4	434 638.0	7 299 444.9	259.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	03:53	ABP21308_TR13	Still	ABP21308_TR13_037	NA		434 641.8	7 299 185.4	434 630.5	7 299 440.4	255.3
17/09/2021	03:53	ABP21308_TR13	Still	ABP21308_TR13_038	NA		434 641.8	7 299 185.4	434 630.7	7 299 440.7	255.5
17/09/2021	03:53	ABP21308_TR13	Still	ABP21308_TR13_039	NA		434 641.8	7 299 185.4	434 631.6	7 299 441.8	256.6
17/09/2021	03:53	ABP21308_TR13	Still	ABP21308_TR13_040	NA		434 641.8	7 299 185.4	434 631.9	7 299 445.4	260.2
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_041	NA		434 641.8	7 299 185.4	434 633.0	7 299 453.6	268.3
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_042	NA		434 641.8	7 299 185.4	434 633.3	7 299 456.4	271.1
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_043	NA		434 641.8	7 299 185.4	434 633.4	7 299 458.7	273.4
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_044	NA		434 641.8	7 299 185.4	434 634.6	7 299 463.7	278.4
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_045	NA		434 641.8	7 299 185.4	434 634.4	7 299 465.6	280.3
17/09/2021	03:54	ABP21308_TR13	Still	ABP21308_TR13_046	NA		434 641.8	7 299 185.4	434 634.8	7 299 466.1	280.8
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_047	NA		434 641.8	7 299 185.4	434 634.5	7 299 467.7	282.4
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_048	NA		434 641.8	7 299 185.4	434 635.4	7 299 470.3	285.0
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_049	NA		434 641.8	7 299 185.4	434 635.2	7 299 472.6	287.3
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_050	NA		434 641.8	7 299 185.4	434 635.9	7 299 473.3	288.0
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_051	NA		434 641.8	7 299 185.4	434 636.3	7 299 476.7	291.4
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_052	NA		434 641.8	7 299 185.4	434 636.6	7 299 477.9	292.5
17/09/2021	03:55	ABP21308_TR13	Still	ABP21308_TR13_053	NA		434 641.8	7 299 185.4	434 636.2	7 299 479.9	294.6
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_054	NA		434 641.8	7 299 185.4	434 638.1	7 299 482.2	296.8
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_055	NA		434 641.8	7 299 185.4	434 639.3	7 299 483.1	297.7
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_056	NA		434 641.8	7 299 185.4	434 639.8	7 299 484.3	298.9
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_057	NA		434 641.8	7 299 185.4	434 640.9	7 299 485.3	299.9
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_058	NA		434 641.8	7 299 185.4	434 644.0	7 299 489.1	303.7
17/09/2021	03:56	ABP21308_TR13	Still	ABP21308_TR13_059	NA		434 641.8	7 299 185.4	434 648.0	7 299 492.9	307.6
17/09/2021	03:57	ABP21308_TR13	Still	ABP21308_TR13_060	NA		434 641.8	7 299 185.4	434 653.7	7 299 498.7	313.5
17/09/2021	03:57	ABP21308_TR13	Still	ABP21308_TR13_061	NA		434 641.8	7 299 185.4	434 657.9	7 299 503.1	318.1
17/09/2021	03:58	ABP21308_TR13	Still	ABP21308_TR13_062	NA		434 641.8	7 299 185.4	434 662.7	7 299 507.5	322.8
17/09/2021	03:58	ABP21308_TR13	Still	ABP21308_TR13_063	NA		434 641.8	7 299 185.4	434 668.3	7 299 512.9	328.6
17/09/2021	03:58	ABP21308_TR13	Still	ABP21308_TR13_064	NA		434 641.8	7 299 185.4	434 669.3	7 299 515.0	330.7
17/09/2021	03:58	ABP21308_TR13	Still	ABP21308_TR13_065	NA		434 641.8	7 299 185.4	434 671.4	7 299 516.4	332.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	03:58	ABP21308_TR13	Still	ABP21308_TR13_066	NA		434 641.8	7 299 185.4	434 672.5	7 299 517.6	333.6
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_067	NA		434 641.8	7 299 185.4	434 674.7	7 299 519.9	336.1
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_068	NA		434 641.8	7 299 185.4	434 674.3	7 299 522.9	339.1
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_069	NA		434 641.8	7 299 185.4	434 673.4	7 299 523.2	339.3
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_070	NA		434 641.8	7 299 185.4	434 672.6	7 299 523.8	339.8
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_071	NA		434 641.8	7 299 185.4	434 670.8	7 299 524.2	340.0
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_072	NA		434 641.8	7 299 185.4	434 670.1	7 299 524.3	340.1
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_073	NA		434 641.8	7 299 185.4	434 669.2	7 299 523.9	339.6
17/09/2021	03:59	ABP21308_TR13	Still	ABP21308_TR13_074	NA		434 641.8	7 299 185.4	434 667.4	7 299 524.8	340.4
17/09/2021	04:00	ABP21308_TR13	Still	ABP21308_TR13_075	NA		434 641.8	7 299 185.4	434 661.2	7 299 529.6	344.7
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_076	NA		434 641.8	7 299 185.4	434 649.0	7 299 538.3	353.0
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_077	NA		434 641.8	7 299 185.4	434 646.7	7 299 540.1	354.7
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_078	NA		434 641.8	7 299 185.4	434 645.9	7 299 540.3	354.9
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_079	NA		434 641.8	7 299 185.4	434 645.3	7 299 541.1	355.7
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_080	NA		434 641.8	7 299 185.4	434 643.5	7 299 541.7	356.3
17/09/2021	04:01	ABP21308_TR13	Still	ABP21308_TR13_081	NA		434 641.8	7 299 185.4	434 641.8	7 299 542.8	357.4
17/09/2021	04:02	ABP21308_TR13	Still	ABP21308_TR13_082	NA		434 641.8	7 299 185.4	434 631.0	7 299 550.6	365.4
17/09/2021	04:02	ABP21308_TR13	Still	ABP21308_TR13_083	NA		434 641.8	7 299 185.4	434 630.3	7 299 551.9	366.7
17/09/2021	04:02	ABP21308_TR13	Still	ABP21308_TR13_084	NA		434 641.8	7 299 185.4	434 628.6	7 299 553.4	368.2
17/09/2021	04:02	ABP21308_TR13	Still	ABP21308_TR13_085	NA		434 641.8	7 299 185.4	434 628.8	7 299 556.0	370.8
17/09/2021	04:03	ABP21308_TR13	Still	ABP21308_TR13_086	NA		434 641.8	7 299 185.4	434 629.0	7 299 558.6	373.4
17/09/2021	04:03	ABP21308_TR13	Still	ABP21308_TR13_087	NA		434 641.8	7 299 185.4	434 629.8	7 299 561.9	376.7
17/09/2021	04:03	ABP21308_TR13	Still	ABP21308_TR13_088	NA		434 641.8	7 299 185.4	434 629.8	7 299 563.7	378.5
17/09/2021	04:03	ABP21308_TR13	Still	ABP21308_TR13_089	NA		434 641.8	7 299 185.4	434 630.3	7 299 565.1	379.9
17/09/2021	04:03	ABP21308_TR13	Still	ABP21308_TR13_090	NA		434 641.8	7 299 185.4	434 629.3	7 299 567.5	382.3
17/09/2021	04:04	ABP21308_TR13	Still	ABP21308_TR13_091	NA		434 641.8	7 299 185.4	434 627.3	7 299 570.4	385.3
17/09/2021	04:04	ABP21308_TR13	Still	ABP21308_TR13_092	NA		434 641.8	7 299 185.4	434 624.0	7 299 574.4	389.4
17/09/2021	04:04	ABP21308_TR13	Still	ABP21308_TR13_093	NA		434 641.8	7 299 185.4	434 621.8	7 299 575.7	390.8
17/09/2021	04:04	ABP21308_TR13	Still	ABP21308_TR13_094	NA		434 641.8	7 299 185.4	434 620.2	7 299 577.8	393.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	04:05	ABP21308_TR13	Still	ABP21308_TR13_095	NA		434 641.8	7 299 185.4	434 615.8	7 299 583.1	398.5
17/09/2021	04:05	ABP21308_TR13	Still	ABP21308_TR13_096	NA		434 641.8	7 299 185.4	434 611.9	7 299 587.3	403.0
17/09/2021	04:08	ABP21308_TR13	Still	ABP21308_TR13_097	NA		434 641.8	7 299 185.4	434 616.8	7 299 582.5	397.9
17/09/2021	04:08	ABP21308_TR13	Still	ABP21308_TR13_098	NA		434 641.8	7 299 185.4	434 612.8	7 299 589.0	404.6
17/09/2021	04:08	ABP21308_TR13	Still	ABP21308_TR13_099	NA		434 641.8	7 299 185.4	434 612.3	7 299 589.7	405.4
17/09/2021	04:09	ABP21308_TR13	Still	ABP21308_TR13_100	NA		434 641.8	7 299 185.4	434 612.9	7 299 590.9	406.5
17/09/2021	04:09	ABP21308_TR13	Still	ABP21308_TR13_101	NA		434 641.8	7 299 185.4	434 606.4	7 299 589.3	405.4
17/09/2021	04:09	ABP21308_TR13	Still	ABP21308_TR13_102	NA		434 641.8	7 299 185.4	434 605.8	7 299 589.5	405.7
17/09/2021	04:10	ABP21308_TR13	Still	ABP21308_TR13_103	NA		434 641.8	7 299 185.4	434 603.9	7 299 596.8	413.1
17/09/2021	04:10	ABP21308_TR13	Still	ABP21308_TR13_104	NA		434 641.8	7 299 185.4	434 603.9	7 299 597.0	413.3
17/09/2021	04:11	ABP21308_TR13	Still	ABP21308_TR13_105	NA		434 641.8	7 299 185.4	434 608.2	7 299 597.7	413.7
17/09/2021	04:11	ABP21308_TR13	Still	ABP21308_TR13_106	NA		434 641.8	7 299 185.4	434 611.1	7 299 597.6	413.3
17/09/2021	04:11	ABP21308_TR13	Still	ABP21308_TR13_107	NA		434 641.8	7 299 185.4	434 613.9	7 299 597.8	413.3
17/09/2021	04:11	ABP21308_TR13	Still	ABP21308_TR13_108	NA		434 641.8	7 299 185.4	434 619.8	7 299 598.7	413.9
17/09/2021	04:11	ABP21308_TR13	Still	ABP21308_TR13_109	NA		434 641.8	7 299 185.4	434 622.3	7 299 599.3	414.4
17/09/2021	04:12	ABP21308_TR13	Still	ABP21308_TR13_110	NA		434 641.8	7 299 185.4	434 626.6	7 299 603.9	418.8
17/09/2021	04:12	ABP21308_TR13	Still	ABP21308_TR13_111	NA		434 641.8	7 299 185.4	434 627.1	7 299 604.4	419.3
17/09/2021	04:12	ABP21308_TR13	Still	ABP21308_TR13_112	NA		434 641.8	7 299 185.4	434 628.5	7 299 610.3	425.1
17/09/2021	04:13	ABP21308_TR13	Still	ABP21308_TR13_113	NA		434 641.8	7 299 185.4	434 630.9	7 299 617.4	432.1
17/09/2021	04:13	ABP21308_TR13	Still	ABP21308_TR13_114	NA		434 641.8	7 299 185.4	434 632.7	7 299 620.6	435.3
17/09/2021	04:14	ABP21308_TR13	Still	ABP21308_TR13_115	NA		434 641.8	7 299 185.4	434 634.9	7 299 625.0	439.7
17/09/2021	04:14	ABP21308_TR13	Still	ABP21308_TR13_116	NA		434 641.8	7 299 185.4	434 636.2	7 299 631.5	446.1
17/09/2021	04:15	ABP21308_TR13	Still	ABP21308_TR13_117	NA		434 641.8	7 299 185.4	434 633.1	7 299 640.6	455.3
17/09/2021	04:15	ABP21308_TR13	Still	ABP21308_TR13_118	NA		434 641.8	7 299 185.4	434 632.9	7 299 642.9	457.6
17/09/2021	04:15	ABP21308_TR13	Still	ABP21308_TR13_119	NA		434 641.8	7 299 185.4	434 633.3	7 299 643.9	458.6
17/09/2021	04:15	ABP21308_TR13	Still	ABP21308_TR13_120	NA		434 641.8	7 299 185.4	434 633.4	7 299 648.4	463.1
17/09/2021	04:16	ABP21308_TR13	Still	ABP21308_TR13_121	NA		434 641.8	7 299 185.4	434 631.8	7 299 657.8	472.5
17/09/2021	04:16	ABP21308_TR13	Still	ABP21308_TR13_122	NA		434 641.8	7 299 185.4	434 631.0	7 299 662.0	476.7
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_123	NA		434 641.8	7 299 185.4	434 633.3	7 299 677.9	492.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_124	NA		434 641.8	7 299 185.4	434 632.9	7 299 680.0	494.7
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_125	NA		434 641.8	7 299 185.4	434 632.8	7 299 682.2	496.9
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_126	NA		434 641.8	7 299 185.4	434 633.0	7 299 684.0	498.7
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_127	NA		434 641.8	7 299 185.4	434 632.9	7 299 685.6	500.3
17/09/2021	04:18	ABP21308_TR13	Still	ABP21308_TR13_128	NA		434 641.8	7 299 185.4	434 630.3	7 299 691.1	505.8
17/09/2021	04:19	ABP21308_TR13	Still	ABP21308_TR13_129	NA		434 641.8	7 299 185.4	434 630.3	7 299 696.6	511.3
17/09/2021	04:20	ABP21308_TR13	Still	ABP21308_TR13_130	NA		434 641.8	7 299 185.4	434 627.7	7 299 705.3	520.1
17/09/2021	04:20	ABP21308_TR13	Still	ABP21308_TR13_131	NA		434 641.8	7 299 185.4	434 627.0	7 299 707.0	521.8
17/09/2021	04:20	ABP21308_TR13	Still	ABP21308_TR13_132	NA		434 641.8	7 299 185.4	434 627.6	7 299 714.5	529.3
17/09/2021	04:21	ABP21308_TR13	Still	ABP21308_TR13_133	NA		434 641.8	7 299 185.4	434 627.7	7 299 715.7	530.5
17/09/2021	04:21	ABP21308_TR13	Still	ABP21308_TR13_134	NA		434 641.8	7 299 185.4	434 627.8	7 299 719.2	534.0
17/09/2021	04:21	ABP21308_TR13	Still	ABP21308_TR13_135	NA		434 641.8	7 299 185.4	434 628.3	7 299 722.0	536.8
17/09/2021	04:22	ABP21308_TR13	Still	ABP21308_TR13_136	NA		434 641.8	7 299 185.4	434 632.2	7 299 738.7	553.4
17/09/2021	04:23	ABP21308_TR13	Still	ABP21308_TR13_137	NA		434 641.8	7 299 185.4	434 631.1	7 299 748.9	563.6
17/09/2021	04:24	ABP21308_TR13	Still	ABP21308_TR13_138	NA		434 641.8	7 299 185.4	434 625.7	7 299 761.0	575.8
17/09/2021	04:25	ABP21308_TR13	Still	ABP21308_TR13_139	NA		434 641.8	7 299 185.4	434 623.9	7 299 775.9	590.8
17/09/2021	04:25	ABP21308_TR13	Still	ABP21308_TR13_140	NA		434 641.8	7 299 185.4	434 624.3	7 299 776.7	591.6
17/09/2021	04:25	ABP21308_TR13	Still	ABP21308_TR13_141	NA		434 641.8	7 299 185.4	434 623.5	7 299 777.4	592.3
17/09/2021	04:25	ABP21308_TR13	Still	ABP21308_TR13_142	NA		434 641.8	7 299 185.4	434 624.2	7 299 778.7	593.6
17/09/2021	04:26	ABP21308_TR13	Still	ABP21308_TR13_143	NA		434 641.8	7 299 185.4	434 624.2	7 299 779.2	594.1
17/09/2021	04:29	ABP21308_TR13	Still	ABP21308_TR13_144	NA		434 641.8	7 299 185.4	434 625.9	7 299 817.3	632.1
17/09/2021	04:29	ABP21308_TR13	Still	ABP21308_TR13_145	NA		434 641.8	7 299 185.4	434 626.6	7 299 823.2	638.0
17/09/2021	04:29	ABP21308_TR13	Still	ABP21308_TR13_146	NA		434 641.8	7 299 185.4	434 625.6	7 299 825.1	639.9
17/09/2021	04:29	ABP21308_TR13	Still	ABP21308_TR13_147	NA		434 641.8	7 299 185.4	434 626.3	7 299 827.0	641.8
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_148	NA		434 641.8	7 299 185.4	434 626.8	7 299 833.1	647.9
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_149	NA		434 641.8	7 299 185.4	434 626.6	7 299 835.2	650.0
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_150	NA		434 641.8	7 299 185.4	434 627.1	7 299 837.8	652.6
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_151	NA		434 641.8	7 299 185.4	434 626.6	7 299 840.0	654.8
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_152	NA		434 641.8	7 299 185.4	434 627.3	7 299 842.2	657.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	04:30	ABP21308_TR13	Still	ABP21308_TR13_153	NA		434 641.8	7 299 185.4	434 627.3	7 299 843.3	658.1
17/09/2021	04:31	ABP21308_TR13	Still	ABP21308_TR13_154	NA		434 641.8	7 299 185.4	434 627.3	7 299 846.1	660.9
17/09/2021	04:31	ABP21308_TR13	Still	ABP21308_TR13_155	NA		434 641.8	7 299 185.4	434 628.1	7 299 851.1	665.8
17/09/2021	04:31	ABP21308_TR13	Still	ABP21308_TR13_156	NA		434 641.8	7 299 185.4	434 628.4	7 299 853.1	667.8
17/09/2021	04:31	ABP21308_TR13	Still	ABP21308_TR13_157	NA		434 641.8	7 299 185.4	434 628.5	7 299 857.0	671.7
17/09/2021	04:31	ABP21308_TR13	Still	ABP21308_TR13_158	NA		434 641.8	7 299 185.4	434 629.0	7 299 858.5	673.2
17/09/2021	04:32	ABP21308_TR13	Still	ABP21308_TR13_159	NA		434 641.8	7 299 185.4	434 629.9	7 299 861.0	675.7
17/09/2021	04:32	ABP21308_TR13	Still	ABP21308_TR13_160	NA		434 641.8	7 299 185.4	434 630.0	7 299 864.3	679.0
17/09/2021	04:32	ABP21308_TR13	Still	ABP21308_TR13_161	NA		434 641.8	7 299 185.4	434 630.9	7 299 868.1	682.8
17/09/2021	04:32	ABP21308_TR13	Still	ABP21308_TR13_162	NA		434 641.8	7 299 185.4	434 630.9	7 299 871.1	685.8
17/09/2021	04:33	ABP21308_TR13	Still	ABP21308_TR13_163	NA		434 641.8	7 299 185.4	434 630.2	7 299 879.6	694.3
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_164	NA		434 641.8	7 299 185.4	434 633.1	7 299 884.7	699.4
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_165	NA		434 641.8	7 299 185.4	434 634.7	7 299 887.5	702.1
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_166	NA		434 641.8	7 299 185.4	434 635.5	7 299 889.5	704.1
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_167	NA		434 641.8	7 299 185.4	434 636.6	7 299 891.1	705.7
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_168	NA		434 641.8	7 299 185.4	434 636.2	7 299 892.9	707.5
17/09/2021	04:34	ABP21308_TR13	Still	ABP21308_TR13_169	NA		434 641.8	7 299 185.4	434 637.3	7 299 897.3	711.9
17/09/2021	04:35	ABP21308_TR13	Still	ABP21308_TR13_170	NA		434 641.8	7 299 185.4	434 637.5	7 299 900.7	715.3
17/09/2021	04:35	ABP21308_TR13	Still	ABP21308_TR13_171	NA		434 641.8	7 299 185.4	434 637.7	7 299 903.1	717.7
17/09/2021	04:35	ABP21308_TR13	Still	ABP21308_TR13_172	NA		434 641.8	7 299 185.4	434 638.4	7 299 909.8	724.4
17/09/2021	04:36	ABP21308_TR13	Still	ABP21308_TR13_173	NA		434 641.8	7 299 185.4	434 639.3	7 299 928.0	742.6
17/09/2021	04:37	ABP21308_TR13	Still	ABP21308_TR13_174	NA		434 641.8	7 299 185.4	434 638.6	7 299 931.4	746.0
17/09/2021	04:37	ABP21308_TR13	Still	ABP21308_TR13_175	NA		434 641.8	7 299 185.4	434 639.4	7 299 936.8	751.4
17/09/2021	04:37	ABP21308_TR13	Still	ABP21308_TR13_176	NA		434 641.8	7 299 185.4	434 639.0	7 299 941.1	755.7
17/09/2021	04:38	ABP21308_TR13	Still	ABP21308_TR13_177	NA		434 641.8	7 299 185.4	434 635.3	7 299 944.6	759.2
17/09/2021	04:39	ABP21308_TR13	Still	ABP21308_TR13_178	NA		434 641.8	7 299 185.4	434 617.7	7 299 949.5	764.5
17/09/2021	04:40	ABP21308_TR13	Still	ABP21308_TR13_179	NA		434 641.8	7 299 185.4	434 619.9	7 299 953.4	768.3
17/09/2021	04:42	ABP21308_TR13	Still	ABP21308_TR13_180	NA		434 641.8	7 299 185.4	434 616.9	7 299 979.2	794.2
17/09/2021	04:42	ABP21308_TR13	Still	ABP21308_TR13_181	NA		434 641.8	7 299 185.4	434 617.7	7 299 986.7	801.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	04:43	ABP21308_TR13	Still	ABP21308_TR13_182	NA		434 641.8	7 299 185.4	434 618.5	7 300 012.9	827.8
17/09/2021	04:45	ABP21308_TR13	Still	ABP21308_TR13_183	NA		434 641.8	7 299 185.4	434 618.0	7 300 007.2	822.1
17/09/2021	04:45	ABP21308_TR13	Still	ABP21308_TR13_184	NA		434 641.8	7 299 185.4	434 618.2	7 300 005.5	820.4
17/09/2021	04:45	ABP21308_TR13	Still	ABP21308_TR13_185	NA		434 641.8	7 299 185.4	434 616.7	7 300 008.4	823.4
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_186	NA		434 641.8	7 299 185.4	434 617.4	7 300 011.6	826.6
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_187	NA		434 641.8	7 299 185.4	434 617.2	7 300 015.1	830.1
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_188	NA		434 641.8	7 299 185.4	434 617.7	7 300 018.9	833.8
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_189	NA		434 641.8	7 299 185.4	434 618.4	7 300 021.0	835.9
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_190	NA		434 641.8	7 299 185.4	434 618.5	7 300 023.3	838.2
17/09/2021	04:46	ABP21308_TR13	Still	ABP21308_TR13_191	NA		434 641.8	7 299 185.4	434 618.4	7 300 026.3	841.2
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_192	NA		434 641.8	7 299 185.4	434 616.4	7 300 027.2	842.2
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_193	NA		434 641.8	7 299 185.4	434 615.8	7 300 033.2	848.2
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_194	NA		434 641.8	7 299 185.4	434 614.7	7 300 033.7	848.7
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_195	NA		434 641.8	7 299 185.4	434 614.2	7 300 033.7	848.7
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_196	NA		434 641.8	7 299 185.4	434 613.2	7 300 033.9	849.0
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_197	NA		434 641.8	7 299 185.4	434 611.9	7 300 033.6	848.7
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_198	NA		434 641.8	7 299 185.4	434 610.4	7 300 033.9	849.1
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_199	NA		434 641.8	7 299 185.4	434 609.4	7 300 033.7	848.9
17/09/2021	04:47	ABP21308_TR13	Still	ABP21308_TR13_200	NA		434 641.8	7 299 185.4	434 608.9	7 300 033.9	849.1
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_201	NA		434 641.8	7 299 185.4	434 609.1	7 300 035.4	850.6
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_202	NA		434 641.8	7 299 185.4	434 608.3	7 300 035.9	851.2
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_203	NA		434 641.8	7 299 185.4	434 608.6	7 300 036.7	851.9
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_204	NA		434 641.8	7 299 185.4	434 608.0	7 300 037.1	852.4
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_205	NA		434 641.8	7 299 185.4	434 608.7	7 300 038.7	853.9
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_206	NA		434 641.8	7 299 185.4	434 609.4	7 300 044.6	859.8
17/09/2021	04:48	ABP21308_TR13	Still	ABP21308_TR13_207	NA		434 641.8	7 299 185.4	434 610.8	7 300 045.7	860.9
17/09/2021	04:49	ABP21308_TR13	Still	ABP21308_TR13_208	NA		434 641.8	7 299 185.4	434 614.2	7 300 050.9	865.9
17/09/2021	04:49	ABP21308_TR13	Still	ABP21308_TR13_209	NA		434 641.8	7 299 185.4	434 616.3	7 300 056.0	871.0
17/09/2021	04:49	ABP21308_TR13	Still	ABP21308_TR13_210	NA		434 641.8	7 299 185.4	434 617.5	7 300 062.6	877.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_211	NA		434 641.8	7 299 185.4	434 615.5	7 300 067.5	882.5
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_212	NA		434 641.8	7 299 185.4	434 615.6	7 300 071.1	886.1
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_213	NA		434 641.8	7 299 185.4	434 615.9	7 300 072.7	887.7
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_214	NA		434 641.8	7 299 185.4	434 616.0	7 300 074.1	889.1
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_215	NA		434 641.8	7 299 185.4	434 615.7	7 300 077.4	892.4
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_216	NA		434 641.8	7 299 185.4	434 614.8	7 300 081.5	896.5
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_217	NA		434 641.8	7 299 185.4	434 615.1	7 300 086.3	901.3
17/09/2021	04:50	ABP21308_TR13	Still	ABP21308_TR13_218	NA		434 641.8	7 299 185.4	434 614.6	7 300 087.3	902.3
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_219	NA		434 641.8	7 299 185.4	434 615.6	7 300 093.1	908.1
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_220	NA		434 641.8	7 299 185.4	434 616.0	7 300 098.9	913.9
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_221	NA		434 641.8	7 299 185.4	434 615.2	7 300 101.9	916.9
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_222	NA		434 641.8	7 299 185.4	434 614.5	7 300 104.7	919.7
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_223	NA		434 641.8	7 299 185.4	434 615.0	7 300 107.8	922.8
17/09/2021	04:51	ABP21308_TR13	Still	ABP21308_TR13_224	NA		434 641.8	7 299 185.4	434 613.9	7 300 109.9	924.9
17/09/2021	04:52	ABP21308_TR13	Still	ABP21308_TR13_225	NA		434 641.8	7 299 185.4	434 613.6	7 300 112.1	927.1
17/09/2021	04:52	ABP21308_TR13	Still	ABP21308_TR13_226	NA		434 641.8	7 299 185.4	434 613.6	7 300 114.4	929.4
17/09/2021	04:52	ABP21308_TR13	Still	ABP21308_TR13_227	NA		434 641.8	7 299 185.4	434 613.0	7 300 117.8	932.8
17/09/2021	04:52	ABP21308_TR13	Still	ABP21308_TR13_228	NA		434 641.8	7 299 185.4	434 612.6	7 300 121.5	936.6
17/09/2021	04:52	ABP21308_TR13	Still	ABP21308_TR13_229	NA		434 641.8	7 299 185.4	434 611.1	7 300 125.7	940.8
17/09/2021	04:53	ABP21308_TR13	Still	ABP21308_TR13_230	NA		434 641.8	7 299 185.4	434 611.5	7 300 130.2	945.3
17/09/2021	04:54	ABP21308_TR13	Still	ABP21308_TR13_231	NA		434 641.8	7 299 185.4	434 610.6	7 300 155.2	970.3
17/09/2021	04:55	ABP21308_TR13	Still	ABP21308_TR13_232	NA		434 641.8	7 299 185.4	434 611.9	7 300 165.0	980.1
17/09/2021	04:56	ABP21308_TR13	Still	ABP21308_TR13_233	NA		434 641.8	7 299 185.4	434 611.9	7 300 180.1	995.1
17/09/2021	04:57	ABP21308_TR13	Still	ABP21308_TR13_234	NA		434 641.8	7 299 185.4	434 613.4	7 300 208.3	1023.3
17/09/2021	04:57	ABP21308_TR13	Still	ABP21308_TR13_235	NA		434 641.8	7 299 185.4	434 613.8	7 300 209.9	1024.9
17/09/2021	04:59	ABP21308_TR13	Still	ABP21308_TR13_236	NA		434 641.8	7 299 185.4	434 613.2	7 300 217.1	1032.1
17/09/2021	04:59	ABP21308_TR13	Still	ABP21308_TR13_237	NA		434 641.8	7 299 185.4	434 612.6	7 300 218.3	1033.3
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_238	NA		434 641.8	7 299 185.4	434 612.8	7 300 245.9	1060.9
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_239	NA		434 641.8	7 299 185.4	434 612.6	7 300 247.2	1062.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_240	NA		434 641.8	7 299 185.4	434 611.6	7 300 248.9	1063.9
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_241	NA		434 641.8	7 299 185.4	434 611.4	7 300 250.0	1065.0
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_242	NA		434 641.8	7 299 185.4	434 609.8	7 300 251.2	1066.3
17/09/2021	05:01	ABP21308_TR13	Still	ABP21308_TR13_243	NA		434 641.8	7 299 185.4	434 609.3	7 300 252.3	1067.4
17/09/2021	05:02	ABP21308_TR13	Still	ABP21308_TR13_244	NA		434 641.8	7 299 185.4	434 608.6	7 300 254.6	1069.7
17/09/2021	05:02	ABP21308_TR13	Still	ABP21308_TR13_245	NA		434 641.8	7 299 185.4	434 609.0	7 300 258.3	1073.4
17/09/2021	05:02	ABP21308_TR13	Still	ABP21308_TR13_246	NA		434 641.8	7 299 185.4	434 609.4	7 300 261.2	1076.3
17/09/2021	05:02	ABP21308_TR13	Still	ABP21308_TR13_247	NA		434 641.8	7 299 185.4	434 609.8	7 300 264.6	1079.7
17/09/2021	05:02	ABP21308_TR13	Still	ABP21308_TR13_248	NA		434 641.8	7 299 185.4	434 610.7	7 300 268.5	1083.5
17/09/2021	05:04	ABP21308_TR13	Still	ABP21308_TR13_249	NA		434 641.8	7 299 185.4	434 611.9	7 300 303.6	1118.6
17/09/2021	05:04	ABP21308_TR13	Still	ABP21308_TR13_250	NA		434 641.8	7 299 185.4	434 611.7	7 300 306.5	1121.5
17/09/2021	05:04	ABP21308_TR13	Still	ABP21308_TR13_251	NA		434 641.8	7 299 185.4	434 612.6	7 300 310.8	1125.8
17/09/2021	05:04	ABP21308_TR13	Still	ABP21308_TR13_252	NA		434 641.8	7 299 185.4	434 612.5	7 300 318.6	1133.6
17/09/2021	05:05	ABP21308_TR13	Still	ABP21308_TR13_253	NA		434 641.8	7 299 185.4	434 610.8	7 300 325.8	1140.8
17/09/2021	05:05	ABP21308_TR13	Still	ABP21308_TR13_254	NA		434 641.8	7 299 185.4	434 609.5	7 300 329.8	1144.9
17/09/2021	05:06	ABP21308_TR13	Still	ABP21308_TR13_255	NA		434 641.8	7 299 185.4	434 607.9	7 300 340.9	1156.0
17/09/2021	05:07	ABP21308_TR13	Still	ABP21308_TR13_256	NA		434 641.8	7 299 185.4	434 606.2	7 300 358.1	1173.2
17/09/2021	05:07	ABP21308_TR13	Still	ABP21308_TR13_257	NA		434 641.8	7 299 185.4	434 606.6	7 300 361.6	1176.7
17/09/2021	05:08	ABP21308_TR13	Still	ABP21308_TR13_258	NA		434 641.8	7 299 185.4	434 604.2	7 300 379.9	1195.1
17/09/2021	05:09	ABP21308_TR13	Still	ABP21308_TR13_259	NA		434 641.8	7 299 185.4	434 604.4	7 300 385.2	1200.4
17/09/2021	05:09	ABP21308_TR13	Still	ABP21308_TR13_260	NA		434 641.8	7 299 185.4	434 605.3	7 300 388.1	1203.3
17/09/2021	05:09	ABP21308_TR13	Still	ABP21308_TR13_261	NA		434 641.8	7 299 185.4	434 605.2	7 300 389.6	1204.8
17/09/2021	05:09	ABP21308_TR13	Still	ABP21308_TR13_262	NA		434 641.8	7 299 185.4	434 605.3	7 300 393.4	1208.6
17/09/2021	05:10	ABP21308_TR13	Still	ABP21308_TR13_263	NA		434 641.8	7 299 185.4	434 596.9	7 300 409.2	1224.6
17/09/2021	05:11	ABP21308_TR13	Still	ABP21308_TR13_264	NA		434 641.8	7 299 185.4	434 603.4	7 300 409.9	1225.1
17/09/2021	05:11	ABP21308_TR13	Still	ABP21308_TR13_265	NA		434 641.8	7 299 185.4	434 611.4	7 300 411.7	1226.7
17/09/2021	05:11	ABP21308_TR13	Still	ABP21308_TR13_266	NA		434 641.8	7 299 185.4	434 621.9	7 300 413.9	1228.7
17/09/2021	05:11	ABP21308_TR13	Still	ABP21308_TR13_267	NA		434 641.8	7 299 185.4	434 625.0	7 300 414.3	1229.0
17/09/2021	05:14	ABP21308_TR13	Still	ABP21308_TR13_268	NA		434 641.8	7 299 185.4	434 603.3	7 300 453.4	1268.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	05:14	ABP21308_TR13	Still	ABP21308_TR13_269	NA		434 641.8	7 299 185.4	434 603.3	7 300 454.9	1270.1
17/09/2021	05:14	ABP21308_TR13	Still	ABP21308_TR13_270	NA		434 641.8	7 299 185.4	434 603.4	7 300 457.9	1273.1
17/09/2021	05:16	ABP21308_TR13	Still	ABP21308_TR13_271	NA		434 641.8	7 299 185.4	434 606.5	7 300 497.8	1312.9
17/09/2021	05:16	ABP21308_TR13	Still	ABP21308_TR13_272	NA		434 641.8	7 299 185.4	434 607.4	7 300 501.4	1316.4
17/09/2021	05:16	ABP21308_TR13	Still	ABP21308_TR13_273	NA		434 641.8	7 299 185.4	434 603.7	7 300 503.2	1318.4
17/09/2021	05:17	ABP21308_TR13	Still	ABP21308_TR13_274	NA		434 641.8	7 299 185.4	434 601.6	7 300 517.9	1333.1
17/09/2021	05:17	ABP21308_TR13	Still	ABP21308_TR13_275	NA		434 641.8	7 299 185.4	434 602.0	7 300 520.7	1335.9
17/09/2021	05:18	ABP21308_TR13	Still	ABP21308_TR13_276	NA		434 641.8	7 299 185.4	434 602.5	7 300 521.9	1337.1
17/09/2021	05:19	ABP21308_TR13	Still	ABP21308_TR13_277	NA		434 641.8	7 299 185.4	434 603.5	7 300 524.0	1339.1
17/09/2021	05:19	ABP21308_TR13	Still	ABP21308_TR13_278	NA		434 641.8	7 299 185.4	434 602.4	7 300 526.4	1341.6
17/09/2021	05:19	ABP21308_TR13	Still	ABP21308_TR13_279	NA		434 641.8	7 299 185.4	434 603.3	7 300 528.6	1343.8
17/09/2021	05:19	ABP21308_TR13	Still	ABP21308_TR13_280	NA		434 641.8	7 299 185.4	434 604.0	7 300 535.4	1350.5
17/09/2021	05:20	ABP21308_TR13	Still	ABP21308_TR13_281	NA		434 641.8	7 299 185.4	434 606.2	7 300 546.0	1361.1
17/09/2021	05:20	ABP21308_TR13	Still	ABP21308_TR13_282	NA		434 641.8	7 299 185.4	434 606.0	7 300 547.6	1362.7
17/09/2021	05:20	ABP21308_TR13	Still	ABP21308_TR13_283	NA		434 641.8	7 299 185.4	434 602.7	7 300 550.0	1365.2
17/09/2021	05:20	ABP21308_TR13	Still	ABP21308_TR13_284	NA		434 641.8	7 299 185.4	434 601.5	7 300 554.6	1369.8
17/09/2021	05:21	ABP21308_TR13	Still	ABP21308_TR13_285	NA		434 641.8	7 299 185.4	434 603.2	7 300 572.0	1387.1
17/09/2021	05:23	ABP21308_TR13	Still	ABP21308_TR13_286	NA		434 641.8	7 299 185.4	434 598.0	7 300 594.4	1409.7
17/09/2021	05:23	ABP21308_TR13	Still	ABP21308_TR13_287	NA		434 641.8	7 299 185.4	434 594.7	7 300 602.4	1417.8
17/09/2021	05:24	ABP21308_TR13	Still	ABP21308_TR13_288	NA		434 641.8	7 299 185.4	434 594.7	7 300 618.3	1433.7
17/09/2021	05:27	ABP21308_TR13	Still	ABP21308_TR13_289	NA		434 641.8	7 299 185.4	434 596.0	7 300 671.9	1487.2
17/09/2021	05:27	ABP21308_TR13	Still	ABP21308_TR13_290	NA		434 641.8	7 299 185.4	434 595.9	7 300 674.6	1489.9
17/09/2021	05:27	ABP21308_TR13	Still	ABP21308_TR13_291	NA		434 641.8	7 299 185.4	434 598.0	7 300 678.5	1493.7
17/09/2021	05:27	ABP21308_TR13	Still	ABP21308_TR13_292	NA		434 641.8	7 299 185.4	434 597.3	7 300 688.0	1503.3
17/09/2021	05:29	ABP21308_TR13	Still	ABP21308_TR13_293	NA		434 641.8	7 299 185.4	434 597.5	7 300 705.1	1520.3
17/09/2021	05:29	ABP21308_TR13	Still	ABP21308_TR13_294	NA		434 641.8	7 299 185.4	434 597.2	7 300 705.7	1521.0
17/09/2021	05:29	ABP21308_TR13	Still	ABP21308_TR13_295	NA		434 641.8	7 299 185.4	434 596.4	7 300 709.5	1524.8
17/09/2021	05:29	ABP21308_TR13	Still	ABP21308_TR13_296	NA		434 641.8	7 299 185.4	434 596.5	7 300 711.2	1526.5
17/09/2021	05:30	ABP21308_TR13	Still	ABP21308_TR13_297	NA		434 641.8	7 299 185.4	434 596.0	7 300 714.5	1529.8

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	05:32	ABP21308_TR13	Still	ABP21308_TR13_298	NA		434 641.8	7 299 185.4	434 592.5	7 300 783.6	1599.0
17/09/2021	05:33	ABP21308_TR13	Still	ABP21308_TR13_299	NA		434 641.8	7 299 185.4	434 592.2	7 300 786.6	1602.0
17/09/2021	05:34	ABP21308_TR13	Still	ABP21308_TR13_300	NA		434 641.8	7 299 185.4	434 588.4	7 300 805.5	1621.0
17/09/2021	05:34	ABP21308_TR13	Still	ABP21308_TR13_301	NA		434 641.8	7 299 185.4	434 587.7	7 300 809.4	1624.9
17/09/2021	05:34	ABP21308_TR13	Still	ABP21308_TR13_302	NA		434 641.8	7 299 185.4	434 588.8	7 300 813.9	1629.4
17/09/2021	05:35	ABP21308_TR13	Still	ABP21308_TR13_303	NA		434 641.8	7 299 185.4	434 591.1	7 300 833.5	1648.9
17/09/2021	05:35	ABP21308_TR13	Still	ABP21308_TR13_304	NA		434 641.8	7 299 185.4	434 590.3	7 300 837.1	1652.5
17/09/2021	05:35	ABP21308_TR13	Still	ABP21308_TR13_305	NA		434 641.8	7 299 185.4	434 589.4	7 300 838.4	1653.8
17/09/2021	05:36	ABP21308_TR13	Still	ABP21308_TR13_306	NA		434 641.8	7 299 185.4	434 589.2	7 300 839.6	1655.0
17/09/2021	05:36	ABP21308_TR13	Still	ABP21308_TR13_307	NA		434 641.8	7 299 185.4	434 590.1	7 300 846.6	1662.0
17/09/2021	05:36	ABP21308_TR13	Still	ABP21308_TR13_308	NA		434 641.8	7 299 185.4	434 589.3	7 300 854.4	1669.8
17/09/2021	05:40	ABP21308_TR13	Still	ABP21308_TR13_309	NA		434 641.8	7 299 185.4	434 590.4	7 300 924.6	1740.0
17/09/2021	05:40	ABP21308_TR13	Still	ABP21308_TR13_310	NA		434 641.8	7 299 185.4	434 590.4	7 300 927.7	1743.1
17/09/2021	05:43	ABP21308_TR13	Still	ABP21308_TR13_311	NA		434 641.8	7 299 185.4	434 589.1	7 300 986.2	1801.6
17/09/2021	05:43	ABP21308_TR13	Still	ABP21308_TR13_312	NA		434 641.8	7 299 185.4	434 589.0	7 300 987.1	1802.5
17/09/2021	05:45	ABP21308_TR13	Still	ABP21308_TR13_313	NA		434 641.8	7 299 185.4	434 591.2	7 300 989.6	1804.9
17/09/2021	05:45	ABP21308_TR13	Still	ABP21308_TR13_314	NA		434 641.8	7 299 185.4	434 592.0	7 300 999.4	1814.7
17/09/2021	05:46	ABP21308_TR13	Still	ABP21308_TR13_315	NA		434 641.8	7 299 185.4	434 593.4	7 301 019.3	1834.5
17/09/2021	05:46	ABP21308_TR13	Still	ABP21308_TR13_316	NA		434 641.8	7 299 185.4	434 594.0	7 301 020.5	1835.7
17/09/2021	05:50	ABP21308_TR13	Still	ABP21308_TR13_317	NA		434 641.8	7 299 185.4	434 592.0	7 301 096.5	1911.7
17/09/2021	05:50	ABP21308_TR13	Still	ABP21308_TR13_318	NA		434 641.8	7 299 185.4	434 590.1	7 301 097.5	1912.8
17/09/2021	05:50	ABP21308_TR13	Still	ABP21308_TR13_319	NA		434 641.8	7 299 185.4	434 589.3	7 301 100.2	1915.5
17/09/2021	05:51	ABP21308_TR13	Still	ABP21308_TR13_320	NA		434 641.8	7 299 185.4	434 585.7	7 301 119.1	1934.5
17/09/2021	05:51	ABP21308_TR13	Still	ABP21308_TR13_321	NA		434 641.8	7 299 185.4	434 582.0	7 301 119.7	1935.2
17/09/2021	05:52	ABP21308_TR13	Still	ABP21308_TR13_322	NA		434 641.8	7 299 185.4	434 580.0	7 301 121.8	1937.4
17/09/2021	05:52	ABP21308_TR13	Still	ABP21308_TR13_323	NA		434 641.8	7 299 185.4	434 578.7	7 301 123.4	1939.0
17/09/2021	05:52	ABP21308_TR13	Still	ABP21308_TR13_324	NA		434 641.8	7 299 185.4	434 577.1	7 301 124.8	1940.5
17/09/2021	05:52	ABP21308_TR13	Still	ABP21308_TR13_325	NA		434 641.8	7 299 185.4	434 576.0	7 301 126.7	1942.4
17/09/2021	05:52	ABP21308_TR13	Still	ABP21308_TR13_326	NA		434 641.8	7 299 185.4	434 570.8	7 301 130.4	1946.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	05:53	ABP21308_TR13	Still	ABP21308_TR13_327	NA		434 641.8	7 299 185.4	434 566.0	7 301 133.7	1949.8
17/09/2021	05:53	ABP21308_TR13	Still	ABP21308_TR13_328	NA		434 641.8	7 299 185.4	434 562.2	7 301 137.1	1953.3
17/09/2021	05:53	ABP21308_TR13	Still	ABP21308_TR13_329	NA		434 641.8	7 299 185.4	434 559.8	7 301 139.6	1955.9
17/09/2021	05:53	ABP21308_TR13	Still	ABP21308_TR13_330	NA		434 641.8	7 299 185.4	434 561.9	7 301 143.4	1959.6
17/09/2021	05:54	ABP21308_TR13	Still	ABP21308_TR13_331	NA		434 641.8	7 299 185.4	434 566.5	7 301 148.8	1964.8
17/09/2021	05:54	ABP21308_TR13	Still	ABP21308_TR13_332	NA		434 641.8	7 299 185.4	434 569.1	7 301 152.0	1967.9
17/09/2021	05:54	ABP21308_TR13	Still	ABP21308_TR13_333	NA		434 641.8	7 299 185.4	434 569.8	7 301 153.1	1969.0
17/09/2021	05:54	ABP21308_TR13	Still	ABP21308_TR13_334	NA		434 641.8	7 299 185.4	434 573.7	7 301 157.3	1973.1
17/09/2021	05:54	ABP21308_TR13	Still	ABP21308_TR13_335	NA		434 641.8	7 299 185.4	434 577.8	7 301 162.3	1977.9
17/09/2021	05:55	ABP21308_TR13	Still	ABP21308_TR13_336	NA		434 641.8	7 299 185.4	434 578.9	7 301 164.6	1980.2
17/09/2021	05:56	ABP21308_TR13	Still	ABP21308_TR13_337	NA		434 641.8	7 299 185.4	434 584.0	7 301 193.0	2008.4
17/09/2021	05:56	ABP21308_TR13	Still	ABP21308_TR13_338	NA		434 641.8	7 299 185.4	434 583.0	7 301 193.0	2008.5
17/09/2021	06:56	ABP21308_TR13	Still	ABP21308_TR13_339	NA		434 641.8	7 299 185.4	433 682.0	7 298 058.0	1480.6
17/09/2021	05:56	ABP21308_TR13	Video	EOL	18	325.9	434 641.8	7 299 185.4	434 583.3	7 301 193.8	2009.3
17/09/2021	21:53	ABP21308_TR14	Video	SOL	29	327.6	436 437.4	7 300 629.3	436 437.4	7 300 629.3	######
17/09/2021	21:50	ABP21308_TR14	Still	ABP21308_TR14_001	NA		436 437.4	7 300 629.3	436 450.0	7 300 612.0	21.4
17/09/2021	21:51	ABP21308_TR14	Still	ABP21308_TR14_002	NA		436 437.4	7 300 629.3	436 444.0	7 300 619.0	12.2
17/09/2021	21:51	ABP21308_TR14	Still	ABP21308_TR14_003	NA		436 437.4	7 300 629.3	436 442.0	7 300 621.0	9.5
17/09/2021	21:53	ABP21308_TR14	Still	ABP21308_TR14_004	NA		436 437.4	7 300 629.3	436 436.1	7 300 622.7	6.7
17/09/2021	21:53	ABP21308_TR14	Still	ABP21308_TR14_005	NA		436 437.4	7 300 629.3	436 436.1	7 300 622.4	7.0
17/09/2021	21:54	ABP21308_TR14	Still	ABP21308_TR14_006	NA		436 437.4	7 300 629.3	436 430.9	7 300 617.5	13.5
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_007	NA		436 437.4	7 300 629.3	436 427.7	7 300 611.9	19.9
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_008	NA		436 437.4	7 300 629.3	436 425.6	7 300 608.1	24.3
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_009	NA		436 437.4	7 300 629.3	436 423.8	7 300 604.4	28.4
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_010	NA		436 437.4	7 300 629.3	436 423.0	7 300 601.8	31.0
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_011	NA		436 437.4	7 300 629.3	436 421.9	7 300 599.3	33.8
17/09/2021	21:55	ABP21308_TR14	Still	ABP21308_TR14_012	NA		436 437.4	7 300 629.3	436 421.2	7 300 598.9	34.4
17/09/2021	21:57	ABP21308_TR14	Still	ABP21308_TR14_013	NA		436 437.4	7 300 629.3	436 406.2	7 300 571.2	65.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	21:58	ABP21308_TR14	Still	ABP21308_TR14_014	NA		436 437.4	7 300 629.3	436 400.4	7 300 562.1	76.7
17/09/2021	21:58	ABP21308_TR14	Still	ABP21308_TR14_015	NA		436 437.4	7 300 629.3	436 398.7	7 300 558.9	80.3
17/09/2021	21:58	ABP21308_TR14	Still	ABP21308_TR14_016	NA		436 437.4	7 300 629.3	436 395.7	7 300 554.0	86.1
17/09/2021	21:59	ABP21308_TR14	Still	ABP21308_TR14_017	NA		436 437.4	7 300 629.3	436 393.3	7 300 544.9	95.2
17/09/2021	21:59	ABP21308_TR14	Still	ABP21308_TR14_018	NA		436 437.4	7 300 629.3	436 392.6	7 300 543.3	97.0
17/09/2021	21:59	ABP21308_TR14	Still	ABP21308_TR14_019	NA		436 437.4	7 300 629.3	436 392.1	7 300 541.5	98.8
17/09/2021	21:59	ABP21308_TR14	Still	ABP21308_TR14_020	NA		436 437.4	7 300 629.3	436 387.2	7 300 534.0	107.7
17/09/2021	22:00	ABP21308_TR14	Still	ABP21308_TR14_021	NA		436 437.4	7 300 629.3	436 385.3	7 300 531.6	110.7
17/09/2021	22:00	ABP21308_TR14	Still	ABP21308_TR14_022	NA		436 437.4	7 300 629.3	436 384.5	7 300 530.2	112.3
17/09/2021	22:01	ABP21308_TR14	Still	ABP21308_TR14_023	NA		436 437.4	7 300 629.3	436 375.1	7 300 516.6	128.8
17/09/2021	22:02	ABP21308_TR14	Still	ABP21308_TR14_024	NA		436 437.4	7 300 629.3	436 374.7	7 300 488.2	154.4
17/09/2021	22:02	ABP21308_TR14	Still	ABP21308_TR14_025	NA		436 437.4	7 300 629.3	436 372.5	7 300 476.0	166.5
17/09/2021	22:03	ABP21308_TR14	Still	ABP21308_TR14_026	NA		436 437.4	7 300 629.3	436 368.8	7 300 466.1	177.0
17/09/2021	22:03	ABP21308_TR14	Still	ABP21308_TR14_027	NA		436 437.4	7 300 629.3	436 368.6	7 300 465.7	177.5
17/09/2021	22:03	ABP21308_TR14	Still	ABP21308_TR14_028	NA		436 437.4	7 300 629.3	436 366.4	7 300 461.5	182.2
17/09/2021	22:04	ABP21308_TR14	Still	ABP21308_TR14_029	NA		436 437.4	7 300 629.3	436 362.0	7 300 450.8	193.8
17/09/2021	22:04	ABP21308_TR14	Still	ABP21308_TR14_030	NA		436 437.4	7 300 629.3	436 358.4	7 300 447.4	198.3
17/09/2021	22:04	ABP21308_TR14	Still	ABP21308_TR14_031	NA		436 437.4	7 300 629.3	436 357.2	7 300 446.2	199.9
17/09/2021	22:04	ABP21308_TR14	Still	ABP21308_TR14_032	NA		436 437.4	7 300 629.3	436 354.8	7 300 444.4	202.5
17/09/2021	22:05	ABP21308_TR14	Still	ABP21308_TR14_033	NA		436 437.4	7 300 629.3	436 347.6	7 300 437.6	211.7
17/09/2021	22:06	ABP21308_TR14	Still	ABP21308_TR14_034	NA		436 437.4	7 300 629.3	436 337.7	7 300 428.6	224.1
17/09/2021	22:06	ABP21308_TR14	Still	ABP21308_TR14_035	NA		436 437.4	7 300 629.3	436 330.0	7 300 422.0	233.5
17/09/2021	22:06	ABP21308_TR14	Still	ABP21308_TR14_036	NA		436 437.4	7 300 629.3	436 327.8	7 300 419.5	236.7
17/09/2021	22:07	ABP21308_TR14	Still	ABP21308_TR14_037	NA		436 437.4	7 300 629.3	436 324.1	7 300 416.6	241.0
17/09/2021	22:07	ABP21308_TR14	Still	ABP21308_TR14_038	NA		436 437.4	7 300 629.3	436 313.8	7 300 407.5	253.9
17/09/2021	22:09	ABP21308_TR14	Still	ABP21308_TR14_039	NA		436 437.4	7 300 629.3	436 292.4	7 300 389.1	280.6
17/09/2021	22:10	ABP21308_TR14	Still	ABP21308_TR14_040	NA		436 437.4	7 300 629.3	436 275.4	7 300 377.4	299.5
17/09/2021	22:10	ABP21308_TR14	Still	ABP21308_TR14_041	NA		436 437.4	7 300 629.3	436 273.5	7 300 375.2	302.4

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	22:10	ABP21308_TR14	Still	ABP21308_TR14_042	NA		436 437.4	7 300 629.3	436 268.8	7 300 368.2	310.8
17/09/2021	22:11	ABP21308_TR14	Still	ABP21308_TR14_043	NA		436 437.4	7 300 629.3	436 265.3	7 300 363.3	316.8
17/09/2021	22:11	ABP21308_TR14	Still	ABP21308_TR14_044	NA		436 437.4	7 300 629.3	436 261.7	7 300 358.1	323.1
17/09/2021	22:11	ABP21308_TR14	Still	ABP21308_TR14_045	NA		436 437.4	7 300 629.3	436 256.5	7 300 350.6	332.3
17/09/2021	22:12	ABP21308_TR14	Still	ABP21308_TR14_046	NA		436 437.4	7 300 629.3	436 244.3	7 300 333.5	353.2
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_047	NA		436 437.4	7 300 629.3	436 239.1	7 300 325.6	362.7
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_048	NA		436 437.4	7 300 629.3	436 237.5	7 300 323.6	365.3
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_049	NA		436 437.4	7 300 629.3	436 237.2	7 300 322.8	366.1
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_050	NA		436 437.4	7 300 629.3	436 236.3	7 300 322.0	367.3
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_051	NA		436 437.4	7 300 629.3	436 235.6	7 300 320.8	368.6
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_052	NA		436 437.4	7 300 629.3	436 234.9	7 300 320.0	369.7
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_053	NA		436 437.4	7 300 629.3	436 234.4	7 300 319.3	370.6
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_054	NA		436 437.4	7 300 629.3	436 233.4	7 300 317.6	372.5
17/09/2021	22:13	ABP21308_TR14	Still	ABP21308_TR14_055	NA		436 437.4	7 300 629.3	436 232.1	7 300 315.8	374.7
17/09/2021	22:14	ABP21308_TR14	Still	ABP21308_TR14_056	NA		436 437.4	7 300 629.3	436 230.7	7 300 313.3	377.6
17/09/2021	22:14	ABP21308_TR14	Still	ABP21308_TR14_057	NA		436 437.4	7 300 629.3	436 229.9	7 300 312.2	379.0
17/09/2021	22:14	ABP21308_TR14	Still	ABP21308_TR14_058	NA		436 437.4	7 300 629.3	436 228.7	7 300 309.9	381.5
17/09/2021	22:14	ABP21308_TR14	Still	ABP21308_TR14_059	NA		436 437.4	7 300 629.3	436 226.4	7 300 306.4	385.7
17/09/2021	22:14	ABP21308_TR14	Still	ABP21308_TR14_060	NA		436 437.4	7 300 629.3	436 224.9	7 300 303.6	388.9
17/09/2021	22:15	ABP21308_TR14	Still	ABP21308_TR14_061	NA		436 437.4	7 300 629.3	436 218.1	7 300 292.6	401.8
17/09/2021	22:15	ABP21308_TR14	Still	ABP21308_TR14_062	NA		436 437.4	7 300 629.3	436 217.0	7 300 290.0	404.6
17/09/2021	22:15	ABP21308_TR14	Still	ABP21308_TR14_063	NA		436 437.4	7 300 629.3	436 215.9	7 300 288.5	406.5
17/09/2021	22:15	ABP21308_TR14	Still	ABP21308_TR14_064	NA		436 437.4	7 300 629.3	436 212.9	7 300 283.6	412.2
17/09/2021	22:15	ABP21308_TR14	Still	ABP21308_TR14_065	NA		436 437.4	7 300 629.3	436 213.0	7 300 283.2	412.5
17/09/2021	22:16	ABP21308_TR14	Still	ABP21308_TR14_066	NA		436 437.4	7 300 629.3	436 206.0	7 300 272.5	425.3
17/09/2021	22:16	ABP21308_TR14	Still	ABP21308_TR14_067	NA		436 437.4	7 300 629.3	436 205.7	7 300 271.8	426.0
17/09/2021	22:16	ABP21308_TR14	Still	ABP21308_TR14_068	NA		436 437.4	7 300 629.3	436 204.9	7 300 270.5	427.5
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_069	NA		436 437.4	7 300 629.3	436 202.7	7 300 269.4	429.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_070	NA		436 437.4	7 300 629.3	436 201.2	7 300 264.7	434.4
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_071	NA		436 437.4	7 300 629.3	436 201.0	7 300 264.5	434.7
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_072	NA		436 437.4	7 300 629.3	436 200.3	7 300 263.3	436.1
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_073	NA		436 437.4	7 300 629.3	436 198.9	7 300 261.4	438.4
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_074	NA		436 437.4	7 300 629.3	436 197.3	7 300 258.3	441.9
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_075	NA		436 437.4	7 300 629.3	436 197.1	7 300 258.0	442.3
17/09/2021	22:17	ABP21308_TR14	Still	ABP21308_TR14_076	NA		436 437.4	7 300 629.3	436 195.6	7 300 255.6	445.1
17/09/2021	22:18	ABP21308_TR14	Still	ABP21308_TR14_077	NA		436 437.4	7 300 629.3	436 184.6	7 300 236.2	467.4
17/09/2021	22:19	ABP21308_TR14	Still	ABP21308_TR14_078	NA		436 437.4	7 300 629.3	436 180.5	7 300 229.8	475.0
17/09/2021	22:19	ABP21308_TR14	Still	ABP21308_TR14_079	NA		436 437.4	7 300 629.3	436 177.2	7 300 230.0	476.6
17/09/2021	22:19	ABP21308_TR14	Still	ABP21308_TR14_080	NA		436 437.4	7 300 629.3	436 173.1	7 300 230.8	478.2
17/09/2021	22:19	ABP21308_TR14	Still	ABP21308_TR14_081	NA		436 437.4	7 300 629.3	436 171.5	7 300 230.3	479.5
17/09/2021	22:19	ABP21308_TR14	Still	ABP21308_TR14_082	NA		436 437.4	7 300 629.3	436 168.9	7 300 227.9	482.9
17/09/2021	22:22	ABP21308_TR14	Still	ABP21308_TR14_083	NA		436 437.4	7 300 629.3	436 137.1	7 300 181.9	538.8
17/09/2021	22:22	ABP21308_TR14	Still	ABP21308_TR14_084	NA		436 437.4	7 300 629.3	436 133.0	7 300 176.0	546.0
17/09/2021	22:22	ABP21308_TR14	Still	ABP21308_TR14_085	NA		436 437.4	7 300 629.3	436 129.5	7 300 170.8	552.3
17/09/2021	22:23	ABP21308_TR14	Still	ABP21308_TR14_086	NA		436 437.4	7 300 629.3	436 127.5	7 300 167.0	556.6
17/09/2021	22:23	ABP21308_TR14	Still	ABP21308_TR14_087	NA		436 437.4	7 300 629.3	436 121.2	7 300 157.2	568.2
17/09/2021	22:24	ABP21308_TR14	Still	ABP21308_TR14_088	NA		436 437.4	7 300 629.3	436 113.8	7 300 147.4	580.5
17/09/2021	22:24	ABP21308_TR14	Still	ABP21308_TR14_089	NA		436 437.4	7 300 629.3	436 111.1	7 300 143.2	585.5
17/09/2021	22:25	ABP21308_TR14	Still	ABP21308_TR14_090	NA		436 437.4	7 300 629.3	436 106.0	7 300 136.3	594.0
17/09/2021	22:25	ABP21308_TR14	Still	ABP21308_TR14_091	NA		436 437.4	7 300 629.3	436 103.5	7 300 136.0	595.7
17/09/2021	22:25	ABP21308_TR14	Still	ABP21308_TR14_092	NA		436 437.4	7 300 629.3	436 097.8	7 300 132.1	602.1
17/09/2021	22:26	ABP21308_TR14	Still	ABP21308_TR14_093	NA		436 437.4	7 300 629.3	436 083.7	7 300 115.1	624.1
17/09/2021	22:26	ABP21308_TR14	Still	ABP21308_TR14_094	NA		436 437.4	7 300 629.3	436 081.3	7 300 111.1	628.8
17/09/2021	22:26	ABP21308_TR14	Still	ABP21308_TR14_095	NA		436 437.4	7 300 629.3	436 077.1	7 300 105.6	635.7
17/09/2021	22:27	ABP21308_TR14	Still	ABP21308_TR14_096	NA		436 437.4	7 300 629.3	436 069.8	7 300 095.2	648.4
17/09/2021	22:27	ABP21308_TR14	Still	ABP21308_TR14_097	NA		436 437.4	7 300 629.3	436 068.6	7 300 093.5	650.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	22:28	ABP21308_TR14	Still	ABP21308_TR14_098	NA		436 437.4	7 300 629.3	436 059.6	7 300 081.3	665.6
17/09/2021	22:28	ABP21308_TR14	Still	ABP21308_TR14_099	NA		436 437.4	7 300 629.3	436 054.1	7 300 074.0	674.7
17/09/2021	22:29	ABP21308_TR14	Still	ABP21308_TR14_100	NA		436 437.4	7 300 629.3	436 040.5	7 300 056.0	697.3
17/09/2021	22:30	ABP21308_TR14	Still	ABP21308_TR14_101	NA		436 437.4	7 300 629.3	436 038.9	7 300 052.1	701.4
17/09/2021	22:31	ABP21308_TR14	Still	ABP21308_TR14_102	NA		436 437.4	7 300 629.3	436 037.4	7 300 048.2	705.5
17/09/2021	22:32	ABP21308_TR14	Still	ABP21308_TR14_103	NA		436 437.4	7 300 629.3	436 028.1	7 300 034.6	721.9
17/09/2021	22:34	ABP21308_TR14	Still	ABP21308_TR14_104	NA		436 437.4	7 300 629.3	436 007.8	7 300 006.5	756.6
17/09/2021	22:34	ABP21308_TR14	Still	ABP21308_TR14_105	NA		436 437.4	7 300 629.3	436 007.5	7 300 005.9	757.3
17/09/2021	22:34	ABP21308_TR14	Still	ABP21308_TR14_106	NA		436 437.4	7 300 629.3	436 006.5	7 300 004.5	759.0
17/09/2021	22:35	ABP21308_TR14	Still	ABP21308_TR14_107	NA		436 437.4	7 300 629.3	436 003.2	7 300 000.2	764.4
17/09/2021	22:35	ABP21308_TR14	Still	ABP21308_TR14_108	NA		436 437.4	7 300 629.3	436 002.5	7 299 998.9	765.9
17/09/2021	22:36	ABP21308_TR14	Still	ABP21308_TR14_109	NA		436 437.4	7 300 629.3	435 991.4	7 299 981.4	786.6
17/09/2021	22:37	ABP21308_TR14	Still	ABP21308_TR14_110	NA		436 437.4	7 300 629.3	435 976.0	7 299 976.9	799.1
17/09/2021	22:37	ABP21308_TR14	Still	ABP21308_TR14_111	NA		436 437.4	7 300 629.3	435 974.6	7 299 975.8	800.8
17/09/2021	22:37	ABP21308_TR14	Still	ABP21308_TR14_112	NA		436 437.4	7 300 629.3	435 969.8	7 299 971.7	806.9
17/09/2021	22:37	ABP21308_TR14	Still	ABP21308_TR14_113	NA		436 437.4	7 300 629.3	435 966.7	7 299 969.5	810.5
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_114	NA		436 437.4	7 300 629.3	435 945.5	7 299 999.8	798.9
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_115	NA		436 437.4	7 300 629.3	435 943.8	7 300 003.5	797.0
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_116	NA		436 437.4	7 300 629.3	435 943.8	7 300 005.0	795.9
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_117	NA		436 437.4	7 300 629.3	435 947.4	7 300 008.5	790.9
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_118	NA		436 437.4	7 300 629.3	435 949.9	7 300 009.4	788.6
17/09/2021	22:39	ABP21308_TR14	Still	ABP21308_TR14_119	NA		436 437.4	7 300 629.3	435 951.3	7 300 003.3	792.6
17/09/2021	22:41	ABP21308_TR14	Still	ABP21308_TR14_120	NA		436 437.4	7 300 629.3	435 968.9	7 299 935.6	837.1
17/09/2021	22:41	ABP21308_TR14	Still	ABP21308_TR14_121	NA		436 437.4	7 300 629.3	435 971.7	7 299 932.3	838.3
17/09/2021	22:42	ABP21308_TR14	Still	ABP21308_TR14_122	NA		436 437.4	7 300 629.3	435 972.5	7 299 924.7	844.2
17/09/2021	22:42	ABP21308_TR14	Still	ABP21308_TR14_123	NA		436 437.4	7 300 629.3	435 971.3	7 299 922.2	846.9
17/09/2021	22:43	ABP21308_TR14	Still	ABP21308_TR14_124	NA		436 437.4	7 300 629.3	435 975.9	7 299 916.3	849.3
17/09/2021	22:43	ABP21308_TR14	Still	ABP21308_TR14_125	NA		436 437.4	7 300 629.3	435 975.7	7 299 916.9	848.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	22:43	ABP21308_TR14	Still	ABP21308_TR14_126	NA		436 437.4	7 300 629.3	435 975.0	7 299 911.2	854.1
17/09/2021	22:43	ABP21308_TR14	Still	ABP21308_TR14_127	NA		436 437.4	7 300 629.3	435 974.1	7 299 910.1	855.5
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_128	NA		436 437.4	7 300 629.3	435 973.5	7 299 910.0	855.9
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_129	NA		436 437.4	7 300 629.3	435 974.9	7 299 909.4	855.7
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_130	NA		436 437.4	7 300 629.3	435 977.6	7 299 908.6	854.9
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_131	NA		436 437.4	7 300 629.3	435 977.8	7 299 908.1	855.2
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_132	NA		436 437.4	7 300 629.3	435 979.1	7 299 906.4	855.9
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_133	NA		436 437.4	7 300 629.3	435 978.4	7 299 905.0	857.5
17/09/2021	22:44	ABP21308_TR14	Still	ABP21308_TR14_134	NA		436 437.4	7 300 629.3	435 979.7	7 299 903.6	858.0
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_135	NA		436 437.4	7 300 629.3	435 979.5	7 299 900.7	860.5
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_136	NA		436 437.4	7 300 629.3	435 977.5	7 299 899.5	862.6
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_137	NA		436 437.4	7 300 629.3	435 975.1	7 299 900.8	862.8
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_138	NA		436 437.4	7 300 629.3	435 974.1	7 299 901.8	862.5
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_139	NA		436 437.4	7 300 629.3	435 971.1	7 299 903.1	863.0
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_140	NA		436 437.4	7 300 629.3	435 969.1	7 299 904.6	862.8
17/09/2021	22:45	ABP21308_TR14	Still	ABP21308_TR14_141	NA		436 437.4	7 300 629.3	435 968.6	7 299 900.5	866.6
17/09/2021	22:46	ABP21308_TR14	Still	ABP21308_TR14_142	NA		436 437.4	7 300 629.3	435 967.0	7 299 877.5	886.8
17/09/2021	22:46	ABP21308_TR14	Still	ABP21308_TR14_143	NA		436 437.4	7 300 629.3	435 963.1	7 299 878.4	888.2
17/09/2021	22:47	ABP21308_TR14	Still	ABP21308_TR14_144	NA		436 437.4	7 300 629.3	435 946.3	7 299 876.6	898.7
17/09/2021	22:48	ABP21308_TR14	Still	ABP21308_TR14_145	NA		436 437.4	7 300 629.3	435 924.6	7 299 876.1	911.2
17/09/2021	22:48	ABP21308_TR14	Still	ABP21308_TR14_146	NA		436 437.4	7 300 629.3	435 923.7	7 299 875.4	912.3
17/09/2021	22:48	ABP21308_TR14	Still	ABP21308_TR14_147	NA		436 437.4	7 300 629.3	435 921.3	7 299 875.1	913.9
17/09/2021	22:48	ABP21308_TR14	Still	ABP21308_TR14_148	NA		436 437.4	7 300 629.3	435 915.8	7 299 878.3	914.4
17/09/2021	22:49	ABP21308_TR14	Still	ABP21308_TR14_149	NA		436 437.4	7 300 629.3	435 901.2	7 299 864.4	934.1
17/09/2021	22:50	ABP21308_TR14	Still	ABP21308_TR14_150	NA		436 437.4	7 300 629.3	435 891.9	7 299 849.3	951.8
17/09/2021	22:50	ABP21308_TR14	Still	ABP21308_TR14_151	NA		436 437.4	7 300 629.3	435 890.7	7 299 846.8	954.6
17/09/2021	22:51	ABP21308_TR14	Still	ABP21308_TR14_152	NA		436 437.4	7 300 629.3	435 880.8	7 299 831.5	972.8
17/09/2021	22:51	ABP21308_TR14	Still	ABP21308_TR14_153	NA		436 437.4	7 300 629.3	435 878.2	7 299 830.1	975.4

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	22:51	ABP21308_TR14	Still	ABP21308_TR14_154	NA		436 437.4	7 300 629.3	435 877.2	7 299 829.2	976.7
17/09/2021	22:51	ABP21308_TR14	Still	ABP21308_TR14_155	NA		436 437.4	7 300 629.3	435 875.2	7 299 827.8	979.0
17/09/2021	22:51	ABP21308_TR14	Still	ABP21308_TR14_156	NA		436 437.4	7 300 629.3	435 872.9	7 299 826.7	981.2
17/09/2021	22:52	ABP21308_TR14	Still	ABP21308_TR14_157	NA		436 437.4	7 300 629.3	435 867.7	7 299 819.8	989.9
17/09/2021	22:52	ABP21308_TR14	Still	ABP21308_TR14_158	NA		436 437.4	7 300 629.3	435 864.2	7 299 812.6	997.8
17/09/2021	22:52	ABP21308_TR14	Still	ABP21308_TR14_159	NA		436 437.4	7 300 629.3	435 863.9	7 299 811.0	999.3
17/09/2021	22:53	ABP21308_TR14	Still	ABP21308_TR14_160	NA		436 437.4	7 300 629.3	435 863.7	7 299 809.5	1000.6
17/09/2021	22:54	ABP21308_TR14	Still	ABP21308_TR14_161	NA		436 437.4	7 300 629.3	435 848.6	7 299 786.5	1028.1
17/09/2021	22:56	ABP21308_TR14	Still	ABP21308_TR14_162	NA		436 437.4	7 300 629.3	435 830.5	7 299 749.9	1068.5
17/09/2021	22:56	ABP21308_TR14	Still	ABP21308_TR14_163	NA		436 437.4	7 300 629.3	435 828.6	7 299 748.9	1070.4
17/09/2021	22:56	ABP21308_TR14	Still	ABP21308_TR14_164	NA		436 437.4	7 300 629.3	435 824.2	7 299 744.7	1076.4
17/09/2021	22:57	ABP21308_TR14	Still	ABP21308_TR14_165	NA		436 437.4	7 300 629.3	435 816.7	7 299 727.8	1094.5
17/09/2021	22:58	ABP21308_TR14	Still	ABP21308_TR14_166	NA		436 437.4	7 300 629.3	435 813.8	7 299 718.3	1104.0
17/09/2021	22:58	ABP21308_TR14	Still	ABP21308_TR14_167	NA		436 437.4	7 300 629.3	435 812.4	7 299 714.7	1107.8
17/09/2021	22:58	ABP21308_TR14	Still	ABP21308_TR14_168	NA		436 437.4	7 300 629.3	435 807.8	7 299 705.9	1117.6
17/09/2021	22:59	ABP21308_TR14	Still	ABP21308_TR14_169	NA		436 437.4	7 300 629.3	435 801.5	7 299 717.3	1111.8
17/09/2021	22:59	ABP21308_TR14	Still	ABP21308_TR14_170	NA		436 437.4	7 300 629.3	435 802.3	7 299 701.1	1124.7
17/09/2021	22:59	ABP21308_TR14	Still	ABP21308_TR14_171	NA		436 437.4	7 300 629.3	435 799.2	7 299 698.2	1128.8
17/09/2021	22:59	ABP21308_TR14	Still	ABP21308_TR14_172	NA		436 437.4	7 300 629.3	435 792.2	7 299 693.3	1136.8
17/09/2021	23:00	ABP21308_TR14	Still	ABP21308_TR14_173	NA		436 437.4	7 300 629.3	435 776.2	7 299 679.8	1157.0
17/09/2021	23:00	ABP21308_TR14	Still	ABP21308_TR14_174	NA		436 437.4	7 300 629.3	435 775.7	7 299 679.6	1157.5
17/09/2021	23:01	ABP21308_TR14	Still	ABP21308_TR14_175	NA		436 437.4	7 300 629.3	435 772.8	7 299 676.9	1161.4
17/09/2021	23:01	ABP21308_TR14	Still	ABP21308_TR14_176	NA		436 437.4	7 300 629.3	435 770.1	7 299 675.0	1164.5
17/09/2021	23:01	ABP21308_TR14	Still	ABP21308_TR14_177	NA		436 437.4	7 300 629.3	435 765.9	7 299 670.4	1170.6
17/09/2021	23:01	ABP21308_TR14	Still	ABP21308_TR14_178	NA		436 437.4	7 300 629.3	435 761.6	7 299 665.3	1177.3
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_179	NA		436 437.4	7 300 629.3	435 748.0	7 299 650.8	1197.0
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_180	NA		436 437.4	7 300 629.3	435 740.6	7 299 643.3	1207.4
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_181	NA		436 437.4	7 300 629.3	435 739.2	7 299 641.7	1209.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_182	NA		436 437.4	7 300 629.3	435 738.1	7 299 641.0	1210.7
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_183	NA		436 437.4	7 300 629.3	435 737.5	7 299 639.6	1212.2
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_184	NA		436 437.4	7 300 629.3	435 735.5	7 299 638.0	1214.6
17/09/2021	23:03	ABP21308_TR14	Still	ABP21308_TR14_185	NA		436 437.4	7 300 629.3	435 734.3	7 299 636.7	1216.4
17/09/2021	23:04	ABP21308_TR14	Still	ABP21308_TR14_186	NA		436 437.4	7 300 629.3	435 730.5	7 299 632.4	1222.1
17/09/2021	23:04	ABP21308_TR14	Still	ABP21308_TR14_187	NA		436 437.4	7 300 629.3	435 722.9	7 299 622.9	1234.2
17/09/2021	23:04	ABP21308_TR14	Still	ABP21308_TR14_188	NA		436 437.4	7 300 629.3	435 722.2	7 299 622.0	1235.4
17/09/2021	23:05	ABP21308_TR14	Still	ABP21308_TR14_189	NA		436 437.4	7 300 629.3	435 714.3	7 299 612.6	1247.6
17/09/2021	23:05	ABP21308_TR14	Still	ABP21308_TR14_190	NA		436 437.4	7 300 629.3	435 713.3	7 299 611.3	1249.3
17/09/2021	23:09	ABP21308_TR14	Still	ABP21308_TR14_191	NA		436 437.4	7 300 629.3	435 675.2	7 299 553.8	1318.2
17/09/2021	23:10	ABP21308_TR14	Still	ABP21308_TR14_192	NA		436 437.4	7 300 629.3	435 661.7	7 299 532.0	1343.8
17/09/2021	23:11	ABP21308_TR14	Still	ABP21308_TR14_193	NA		436 437.4	7 300 629.3	435 658.8	7 299 526.8	1349.7
17/09/2021	23:12	ABP21308_TR14	Still	ABP21308_TR14_194	NA		436 437.4	7 300 629.3	435 647.8	7 299 510.1	1369.7
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_195	NA		436 437.4	7 300 629.3	435 637.1	7 299 497.5	1386.2
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_196	NA		436 437.4	7 300 629.3	435 635.9	7 299 496.1	1388.0
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_197	NA		436 437.4	7 300 629.3	435 632.4	7 299 490.9	1394.3
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_198	NA		436 437.4	7 300 629.3	435 632.3	7 299 490.4	1394.7
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_199	NA		436 437.4	7 300 629.3	435 629.8	7 299 487.4	1398.6
17/09/2021	23:13	ABP21308_TR14	Still	ABP21308_TR14_200	NA		436 437.4	7 300 629.3	435 629.0	7 299 486.6	1399.7
17/09/2021	23:14	ABP21308_TR14	Still	ABP21308_TR14_201	NA		436 437.4	7 300 629.3	435 620.8	7 299 475.4	1413.6
17/09/2021	23:14	ABP21308_TR14	Still	ABP21308_TR14_202	NA		436 437.4	7 300 629.3	435 618.5	7 299 472.3	1417.5
17/09/2021	23:14	ABP21308_TR14	Still	ABP21308_TR14_203	NA		436 437.4	7 300 629.3	435 616.9	7 299 470.2	1420.1
17/09/2021	23:16	ABP21308_TR14	Still	ABP21308_TR14_204	NA		436 437.4	7 300 629.3	435 605.0	7 299 453.4	1440.7
17/09/2021	23:18	ABP21308_TR14	Still	ABP21308_TR14_205	NA		436 437.4	7 300 629.3	435 576.0	7 299 415.0	1488.8
17/09/2021	23:18	ABP21308_TR14	Still	ABP21308_TR14_206	NA		436 437.4	7 300 629.3	435 575.5	7 299 414.0	1489.9
17/09/2021	23:18	ABP21308_TR14	Still	ABP21308_TR14_207	NA		436 437.4	7 300 629.3	435 574.7	7 299 413.6	1490.7
17/09/2021	23:18	ABP21308_TR14	Still	ABP21308_TR14_208	NA		436 437.4	7 300 629.3	435 574.3	7 299 412.8	1491.6
17/09/2021	23:19	ABP21308_TR14	Still	ABP21308_TR14_209	NA		436 437.4	7 300 629.3	435 567.3	7 299 403.9	1502.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	23:19	ABP21308_TR14	Still	ABP21308_TR14_210	NA		436 437.4	7 300 629.3	435 565.8	7 299 401.8	1505.5
17/09/2021	23:19	ABP21308_TR14	Still	ABP21308_TR14_211	NA		436 437.4	7 300 629.3	435 564.2	7 299 399.8	1508.0
17/09/2021	23:19	ABP21308_TR14	Still	ABP21308_TR14_212	NA		436 437.4	7 300 629.3	435 561.8	7 299 396.7	1511.9
17/09/2021	23:20	ABP21308_TR14	Still	ABP21308_TR14_213	NA		436 437.4	7 300 629.3	435 556.1	7 299 388.2	1522.2
17/09/2021	23:21	ABP21308_TR14	Still	ABP21308_TR14_214	NA		436 437.4	7 300 629.3	435 546.1	7 299 373.8	1539.7
17/09/2021	23:21	ABP21308_TR14	Still	ABP21308_TR14_215	NA		436 437.4	7 300 629.3	435 541.1	7 299 366.5	1548.6
17/09/2021	23:22	ABP21308_TR14	Still	ABP21308_TR14_216	NA		436 437.4	7 300 629.3	435 536.0	7 299 358.4	1558.1
17/09/2021	23:23	ABP21308_TR14	Still	ABP21308_TR14_217	NA		436 437.4	7 300 629.3	435 521.4	7 299 337.2	1583.8
17/09/2021	23:24	ABP21308_TR14	Still	ABP21308_TR14_218	NA		436 437.4	7 300 629.3	435 508.6	7 299 318.2	1606.8
17/09/2021	23:26	ABP21308_TR14	Still	ABP21308_TR14_219	NA		436 437.4	7 300 629.3	435 497.0	7 299 300.0	1628.3
17/09/2021	23:26	ABP21308_TR14	Still	ABP21308_TR14_220	NA		436 437.4	7 300 629.3	435 491.9	7 299 294.0	1636.2
17/09/2021	23:27	ABP21308_TR14	Still	ABP21308_TR14_221	NA		436 437.4	7 300 629.3	435 478.8	7 299 274.1	1660.0
17/09/2021	23:28	ABP21308_TR14	Still	ABP21308_TR14_222	NA		436 437.4	7 300 629.3	435 476.4	7 299 271.0	1663.9
17/09/2021	23:28	ABP21308_TR14	Still	ABP21308_TR14_223	NA		436 437.4	7 300 629.3	435 474.9	7 299 268.6	1666.7
17/09/2021	23:30	ABP21308_TR14	Still	ABP21308_TR14_224	NA		436 437.4	7 300 629.3	435 455.3	7 299 241.4	1700.2
17/09/2021	23:30	ABP21308_TR14	Still	ABP21308_TR14_225	NA		436 437.4	7 300 629.3	435 452.1	7 299 236.2	1706.3
17/09/2021	23:30	ABP21308_TR14	Still	ABP21308_TR14_226	NA		436 437.4	7 300 629.3	435 451.9	7 299 235.8	1706.8
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_227	NA		436 437.4	7 300 629.3	435 445.2	7 299 226.8	1718.0
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_228	NA		436 437.4	7 300 629.3	435 443.6	7 299 224.5	1720.8
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_229	NA		436 437.4	7 300 629.3	435 443.2	7 299 223.7	1721.7
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_230	NA		436 437.4	7 300 629.3	435 442.6	7 299 222.9	1722.7
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_231	NA		436 437.4	7 300 629.3	435 441.2	7 299 221.9	1724.3
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_232	NA		436 437.4	7 300 629.3	435 439.8	7 299 219.2	1727.3
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_233	NA		436 437.4	7 300 629.3	435 438.4	7 299 216.7	1730.2
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_234	NA		436 437.4	7 300 629.3	435 437.2	7 299 215.4	1731.9
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_235	NA		436 437.4	7 300 629.3	435 436.7	7 299 214.9	1732.6
17/09/2021	23:31	ABP21308_TR14	Still	ABP21308_TR14_236	NA		436 437.4	7 300 629.3	435 436.6	7 299 213.8	1733.6
17/09/2021	23:32	ABP21308_TR14	Still	ABP21308_TR14_237	NA		436 437.4	7 300 629.3	435 430.3	7 299 205.9	1743.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	23:33	ABP21308_TR14	Still	ABP21308_TR14_238	NA		436 437.4	7 300 629.3	435 423.1	7 299 196.0	1755.9
17/09/2021	23:33	ABP21308_TR14	Still	ABP21308_TR14_239	NA		436 437.4	7 300 629.3	435 422.5	7 299 195.9	1756.3
17/09/2021	23:33	ABP21308_TR14	Still	ABP21308_TR14_240	NA		436 437.4	7 300 629.3	435 416.2	7 299 187.3	1767.0
17/09/2021	23:35	ABP21308_TR14	Still	ABP21308_TR14_241	NA		436 437.4	7 300 629.3	435 399.2	7 299 164.7	1795.2
17/09/2021	23:35	ABP21308_TR14	Still	ABP21308_TR14_242	NA		436 437.4	7 300 629.3	435 397.8	7 299 163.5	1797.0
17/09/2021	23:35	ABP21308_TR14	Still	ABP21308_TR14_243	NA		436 437.4	7 300 629.3	435 396.2	7 299 161.8	1799.3
17/09/2021	23:35	ABP21308_TR14	Still	ABP21308_TR14_244	NA		436 437.4	7 300 629.3	435 390.9	7 299 153.4	1809.3
17/09/2021	23:36	ABP21308_TR14	Still	ABP21308_TR14_245	NA		436 437.4	7 300 629.3	435 389.6	7 299 151.9	1811.2
17/09/2021	23:36	ABP21308_TR14	Still	ABP21308_TR14_246	NA		436 437.4	7 300 629.3	435 388.0	7 299 149.9	1813.8
17/09/2021	23:36	ABP21308_TR14	Still	ABP21308_TR14_247	NA		436 437.4	7 300 629.3	435 387.5	7 299 149.1	1814.7
17/09/2021	23:36	ABP21308_TR14	Still	ABP21308_TR14_248	NA		436 437.4	7 300 629.3	435 386.7	7 299 147.3	1816.7
17/09/2021	23:37	ABP21308_TR14	Still	ABP21308_TR14_249	NA		436 437.4	7 300 629.3	435 370.5	7 299 123.3	1845.6
17/09/2021	23:38	ABP21308_TR14	Still	ABP21308_TR14_250	NA		436 437.4	7 300 629.3	435 367.5	7 299 119.0	1850.9
17/09/2021	23:38	ABP21308_TR14	Still	ABP21308_TR14_251	NA		436 437.4	7 300 629.3	435 362.5	7 299 113.0	1858.6
17/09/2021	23:38	ABP21308_TR14	Still	ABP21308_TR14_252	NA		436 437.4	7 300 629.3	435 360.6	7 299 110.5	1861.8
17/09/2021	23:38	ABP21308_TR14	Still	ABP21308_TR14_253	NA		436 437.4	7 300 629.3	435 360.0	7 299 109.8	1862.7
17/09/2021	23:38	ABP21308_TR14	Still	ABP21308_TR14_254	NA		436 437.4	7 300 629.3	435 359.5	7 299 109.2	1863.5
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_255	NA		436 437.4	7 300 629.3	435 358.8	7 299 107.0	1865.7
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_256	NA		436 437.4	7 300 629.3	435 357.2	7 299 105.9	1867.5
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_257	NA		436 437.4	7 300 629.3	435 356.5	7 299 104.3	1869.2
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_258	NA		436 437.4	7 300 629.3	435 355.9	7 299 103.3	1870.4
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_259	NA		436 437.4	7 300 629.3	435 355.3	7 299 102.4	1871.5
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_260	NA		436 437.4	7 300 629.3	435 349.5	7 299 094.7	1881.1
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_261	NA		436 437.4	7 300 629.3	435 349.4	7 299 094.1	1881.6
17/09/2021	23:39	ABP21308_TR14	Still	ABP21308_TR14_262	NA		436 437.4	7 300 629.3	435 348.8	7 299 093.3	1882.6
17/09/2021	23:40	ABP21308_TR14	Still	ABP21308_TR14_263	NA		436 437.4	7 300 629.3	435 347.7	7 299 091.9	1884.4
17/09/2021	23:40	ABP21308_TR14	Still	ABP21308_TR14_264	NA		436 437.4	7 300 629.3	435 345.3	7 299 088.6	1888.5
17/09/2021	23:40	ABP21308_TR14	Still	ABP21308_TR14_265	NA		436 437.4	7 300 629.3	435 340.0	7 299 081.2	1897.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	23:41	ABP21308_TR14	Still	ABP21308_TR14_266	NA		436 437.4	7 300 629.3	435 337.3	7 299 077.5	1902.2
17/09/2021	23:42	ABP21308_TR14	Still	ABP21308_TR14_267	NA		436 437.4	7 300 629.3	435 321.5	7 299 056.4	1928.5
17/09/2021	23:42	ABP21308_TR14	Still	ABP21308_TR14_268	NA		436 437.4	7 300 629.3	435 319.6	7 299 052.7	1932.7
17/09/2021	23:43	ABP21308_TR14	Still	ABP21308_TR14_269	NA		436 437.4	7 300 629.3	435 315.0	7 299 046.8	1940.1
17/09/2021	23:43	ABP21308_TR14	Still	ABP21308_TR14_270	NA		436 437.4	7 300 629.3	435 308.6	7 299 038.5	1950.6
17/09/2021	23:43	ABP21308_TR14	Still	ABP21308_TR14_271	NA		436 437.4	7 300 629.3	435 308.2	7 299 037.3	1951.8
17/09/2021	23:45	ABP21308_TR14	Still	ABP21308_TR14_272	NA		436 437.4	7 300 629.3	435 287.7	7 299 007.6	1987.9
17/09/2021	23:45	ABP21308_TR14	Still	ABP21308_TR14_273	NA		436 437.4	7 300 629.3	435 287.3	7 299 007.1	1988.5
17/09/2021	23:46	ABP21308_TR14	Still	ABP21308_TR14_274	NA		436 437.4	7 300 629.3	435 283.2	7 299 001.5	1995.5
17/09/2021	23:46	ABP21308_TR14	Still	ABP21308_TR14_275	NA		436 437.4	7 300 629.3	435 276.0	7 298 991.8	2007.5
17/09/2021	23:47	ABP21308_TR14	Still	ABP21308_TR14_276	NA		436 437.4	7 300 629.3	435 273.0	7 298 986.0	2014.0
17/09/2021	23:46	ABP21308_TR14	Video	EOL	30	323.6	436 437.4	7 300 629.3	435 276.2	7 298 990.7	2008.3
17/09/2021	00:10	ABP21308_TR15	Video	SOL	15	324.7	435 658.0	7 298 325.9	435 654.3	7 298 346.1	20.5
17/09/2021	00:10	ABP21308_TR15	Still	ABP21308_TR15_001	NA		435 658.0	7 298 325.9	435 654.0	7 298 347.0	21.5
17/09/2021	00:11	ABP21308_TR15	Still	ABP21308_TR15_002	NA		435 658.0	7 298 325.9	435 662.5	7 298 336.7	11.7
17/09/2021	00:11	ABP21308_TR15	Still	ABP21308_TR15_003	NA		435 658.0	7 298 325.9	435 667.1	7 298 332.6	11.3
17/09/2021	00:12	ABP21308_TR15	Still	ABP21308_TR15_004	NA		435 658.0	7 298 325.9	435 685.7	7 298 329.6	27.9
17/09/2021	00:12	ABP21308_TR15	Still	ABP21308_TR15_005	NA		435 658.0	7 298 325.9	435 688.7	7 298 321.9	31.0
17/09/2021	00:12	ABP21308_TR15	Still	ABP21308_TR15_006	NA		435 658.0	7 298 325.9	435 689.4	7 298 320.5	31.9
17/09/2021	00:12	ABP21308_TR15	Still	ABP21308_TR15_007	NA		435 658.0	7 298 325.9	435 691.9	7 298 317.5	34.9
17/09/2021	00:13	ABP21308_TR15	Still	ABP21308_TR15_008	NA		435 658.0	7 298 325.9	435 701.4	7 298 319.4	43.9
17/09/2021	00:13	ABP21308_TR15	Still	ABP21308_TR15_009	NA		435 658.0	7 298 325.9	435 700.4	7 298 314.9	43.8
17/09/2021	00:14	ABP21308_TR15	Still	ABP21308_TR15_010	NA		435 658.0	7 298 325.9	435 712.0	7 298 308.4	56.8
17/09/2021	00:14	ABP21308_TR15	Still	ABP21308_TR15_011	NA		435 658.0	7 298 325.9	435 720.9	7 298 303.4	66.8
17/09/2021	00:15	ABP21308_TR15	Still	ABP21308_TR15_012	NA		435 658.0	7 298 325.9	435 729.1	7 298 305.0	74.1
17/09/2021	00:16	ABP21308_TR15	Still	ABP21308_TR15_013	NA		435 658.0	7 298 325.9	435 726.6	7 298 319.0	68.9
17/09/2021	00:16	ABP21308_TR15	Still	ABP21308_TR15_014	NA		435 658.0	7 298 325.9	435 726.6	7 298 319.3	68.9
17/09/2021	00:17	ABP21308_TR15	Still	ABP21308_TR15_015	NA		435 658.0	7 298 325.9	435 738.8	7 298 339.4	81.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	00:18	ABP21308_TR15	Still	ABP21308_TR15_016	NA		435 658.0	7 298 325.9	435 738.9	7 298 339.3	82.0
17/09/2021	00:18	ABP21308_TR15	Still	ABP21308_TR15_017	NA		435 658.0	7 298 325.9	435 739.2	7 298 339.6	82.3
17/09/2021	00:18	ABP21308_TR15	Still	ABP21308_TR15_018	NA		435 658.0	7 298 325.9	435 739.3	7 298 339.7	82.5
17/09/2021	00:18	ABP21308_TR15	Still	ABP21308_TR15_019	NA		435 658.0	7 298 325.9	435 745.9	7 298 337.7	88.7
17/09/2021	00:19	ABP21308_TR15	Still	ABP21308_TR15_020	NA		435 658.0	7 298 325.9	435 752.7	7 298 341.0	95.9
17/09/2021	00:19	ABP21308_TR15	Still	ABP21308_TR15_021	NA		435 658.0	7 298 325.9	435 754.2	7 298 346.4	98.4
17/09/2021	00:19	ABP21308_TR15	Still	ABP21308_TR15_022	NA		435 658.0	7 298 325.9	435 752.9	7 298 345.6	96.9
17/09/2021	00:20	ABP21308_TR15	Still	ABP21308_TR15_023	NA		435 658.0	7 298 325.9	435 752.6	7 298 346.2	96.8
17/09/2021	00:28	ABP21308_TR15	Still	ABP21308_TR15_024	NA		435 658.0	7 298 325.9	435 893.6	7 298 359.1	237.9
17/09/2021	00:28	ABP21308_TR15	Still	ABP21308_TR15_025	NA		435 658.0	7 298 325.9	435 897.8	7 298 359.1	242.1
17/09/2021	00:28	ABP21308_TR15	Still	ABP21308_TR15_026	NA		435 658.0	7 298 325.9	435 899.5	7 298 358.7	243.7
17/09/2021	00:29	ABP21308_TR15	Still	ABP21308_TR15_027	NA		435 658.0	7 298 325.9	435 923.1	7 298 362.5	267.6
17/09/2021	00:30	ABP21308_TR15	Still	ABP21308_TR15_028	NA		435 658.0	7 298 325.9	435 938.0	7 298 364.5	282.6
17/09/2021	00:30	ABP21308_TR15	Still	ABP21308_TR15_029	NA		435 658.0	7 298 325.9	435 940.6	7 298 364.2	285.2
17/09/2021	00:31	ABP21308_TR15	Still	ABP21308_TR15_030	NA		435 658.0	7 298 325.9	435 950.0	7 298 364.8	294.6
17/09/2021	00:31	ABP21308_TR15	Still	ABP21308_TR15_031	NA		435 658.0	7 298 325.9	435 951.2	7 298 365.1	295.8
17/09/2021	00:31	ABP21308_TR15	Still	ABP21308_TR15_032	NA		435 658.0	7 298 325.9	435 963.1	7 298 364.9	307.6
17/09/2021	00:32	ABP21308_TR15	Still	ABP21308_TR15_033	NA		435 658.0	7 298 325.9	435 965.6	7 298 365.2	310.1
17/09/2021	00:32	ABP21308_TR15	Still	ABP21308_TR15_034	NA		435 658.0	7 298 325.9	435 969.8	7 298 366.2	314.4
17/09/2021	00:32	ABP21308_TR15	Still	ABP21308_TR15_035	NA		435 658.0	7 298 325.9	435 973.4	7 298 368.3	318.2
17/09/2021	00:32	ABP21308_TR15	Still	ABP21308_TR15_036	NA		435 658.0	7 298 325.9	435 966.8	7 298 360.7	310.8
17/09/2021	00:32	ABP21308_TR15	Still	ABP21308_TR15_037	NA		435 658.0	7 298 325.9	435 978.9	7 298 369.9	323.9
17/09/2021	00:33	ABP21308_TR15	Still	ABP21308_TR15_038	NA		435 658.0	7 298 325.9	435 990.2	7 298 373.0	335.5
17/09/2021	00:33	ABP21308_TR15	Still	ABP21308_TR15_039	NA		435 658.0	7 298 325.9	435 992.0	7 298 374.4	337.5
17/09/2021	00:35	ABP21308_TR15	Still	ABP21308_TR15_040	NA		435 658.0	7 298 325.9	436 012.6	7 298 377.2	358.3
17/09/2021	00:35	ABP21308_TR15	Still	ABP21308_TR15_041	NA		435 658.0	7 298 325.9	436 021.9	7 298 378.9	367.7
17/09/2021	00:36	ABP21308_TR15	Still	ABP21308_TR15_042	NA		435 658.0	7 298 325.9	436 037.9	7 298 377.1	383.3
17/09/2021	00:36	ABP21308_TR15	Still	ABP21308_TR15_043	NA		435 658.0	7 298 325.9	436 039.4	7 298 375.7	384.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	00:38	ABP21308_TR15	Still	ABP21308_TR15_044	NA		435 658.0	7 298 325.9	436 078.4	7 298 384.9	424.5
17/09/2021	00:38	ABP21308_TR15	Still	ABP21308_TR15_045	NA		435 658.0	7 298 325.9	436 083.5	7 298 384.9	429.6
17/09/2021	00:39	ABP21308_TR15	Still	ABP21308_TR15_046	NA		435 658.0	7 298 325.9	436 087.2	7 298 384.3	433.2
17/09/2021	00:39	ABP21308_TR15	Still	ABP21308_TR15_047	NA		435 658.0	7 298 325.9	436 094.9	7 298 386.1	441.0
17/09/2021	00:40	ABP21308_TR15	Still	ABP21308_TR15_048	NA		435 658.0	7 298 325.9	436 111.8	7 298 387.3	457.9
17/09/2021	00:40	ABP21308_TR15	Still	ABP21308_TR15_049	NA		435 658.0	7 298 325.9	436 113.1	7 298 387.1	459.2
17/09/2021	00:40	ABP21308_TR15	Still	ABP21308_TR15_050	NA		435 658.0	7 298 325.9	436 115.5	7 298 387.0	461.6
17/09/2021	00:41	ABP21308_TR15	Still	ABP21308_TR15_051	NA		435 658.0	7 298 325.9	436 122.5	7 298 388.1	468.6
17/09/2021	00:41	ABP21308_TR15	Still	ABP21308_TR15_052	NA		435 658.0	7 298 325.9	436 129.3	7 298 390.3	475.7
17/09/2021	00:41	ABP21308_TR15	Still	ABP21308_TR15_053	NA		435 658.0	7 298 325.9	436 134.0	7 298 390.6	480.4
17/09/2021	00:41	ABP21308_TR15	Still	ABP21308_TR15_054	NA		435 658.0	7 298 325.9	436 135.7	7 298 390.7	482.1
17/09/2021	00:41	ABP21308_TR15	Still	ABP21308_TR15_055	NA		435 658.0	7 298 325.9	436 138.5	7 298 391.9	485.0
17/09/2021	00:42	ABP21308_TR15	Still	ABP21308_TR15_056	NA		435 658.0	7 298 325.9	436 150.5	7 298 395.8	497.4
17/09/2021	00:43	ABP21308_TR15	Still	ABP21308_TR15_057	NA		435 658.0	7 298 325.9	436 164.2	7 298 397.0	511.2
17/09/2021	00:43	ABP21308_TR15	Still	ABP21308_TR15_058	NA		435 658.0	7 298 325.9	436 168.1	7 298 395.6	514.8
17/09/2021	00:44	ABP21308_TR15	Still	ABP21308_TR15_059	NA		435 658.0	7 298 325.9	436 190.6	7 298 399.5	537.7
17/09/2021	00:44	ABP21308_TR15	Still	ABP21308_TR15_060	NA		435 658.0	7 298 325.9	436 201.3	7 298 399.6	548.3
17/09/2021	00:45	ABP21308_TR15	Still	ABP21308_TR15_061	NA		435 658.0	7 298 325.9	436 205.7	7 298 400.6	552.8
17/09/2021	00:45	ABP21308_TR15	Still	ABP21308_TR15_062	NA		435 658.0	7 298 325.9	436 215.4	7 298 402.9	562.7
17/09/2021	00:46	ABP21308_TR15	Still	ABP21308_TR15_063	NA		435 658.0	7 298 325.9	436 232.4	7 298 403.6	579.6
17/09/2021	00:46	ABP21308_TR15	Still	ABP21308_TR15_064	NA		435 658.0	7 298 325.9	436 232.8	7 298 404.8	580.2
17/09/2021	00:47	ABP21308_TR15	Still	ABP21308_TR15_065	NA		435 658.0	7 298 325.9	436 254.4	7 298 409.3	602.2
17/09/2021	00:49	ABP21308_TR15	Still	ABP21308_TR15_066	NA		435 658.0	7 298 325.9	436 278.4	7 298 409.8	626.0
17/09/2021	00:49	ABP21308_TR15	Still	ABP21308_TR15_067	NA		435 658.0	7 298 325.9	436 281.3	7 298 410.8	629.1
17/09/2021	00:49	ABP21308_TR15	Still	ABP21308_TR15_068	NA		435 658.0	7 298 325.9	436 282.2	7 298 411.0	630.0
17/09/2021	00:50	ABP21308_TR15	Still	ABP21308_TR15_069	NA		435 658.0	7 298 325.9	436 293.4	7 298 412.0	641.2
17/09/2021	00:50	ABP21308_TR15	Still	ABP21308_TR15_070	NA		435 658.0	7 298 325.9	436 307.7	7 298 414.3	655.7
17/09/2021	00:51	ABP21308_TR15	Still	ABP21308_TR15_071	NA		435 658.0	7 298 325.9	436 318.9	7 298 415.7	667.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	00:51	ABP21308_TR15	Still	ABP21308_TR15_072	NA		435 658.0	7 298 325.9	436 328.0	7 298 416.9	676.2
17/09/2021	00:51	ABP21308_TR15	Still	ABP21308_TR15_073	NA		435 658.0	7 298 325.9	436 329.3	7 298 417.4	677.5
17/09/2021	00:52	ABP21308_TR15	Still	ABP21308_TR15_074	NA		435 658.0	7 298 325.9	436 335.7	7 298 417.3	683.8
17/09/2021	00:52	ABP21308_TR15	Still	ABP21308_TR15_075	NA		435 658.0	7 298 325.9	436 341.8	7 298 419.0	690.1
17/09/2021	00:53	ABP21308_TR15	Still	ABP21308_TR15_076	NA		435 658.0	7 298 325.9	436 362.2	7 298 421.6	710.7
17/09/2021	00:54	ABP21308_TR15	Still	ABP21308_TR15_077	NA		435 658.0	7 298 325.9	436 375.8	7 298 423.3	724.4
17/09/2021	00:54	ABP21308_TR15	Still	ABP21308_TR15_078	NA		435 658.0	7 298 325.9	436 388.5	7 298 424.4	737.1
17/09/2021	00:54	ABP21308_TR15	Still	ABP21308_TR15_079	NA		435 658.0	7 298 325.9	436 389.0	7 298 424.2	737.6
17/09/2021	00:55	ABP21308_TR15	Still	ABP21308_TR15_080	NA		435 658.0	7 298 325.9	436 403.9	7 298 427.6	752.8
17/09/2021	00:55	ABP21308_TR15	Still	ABP21308_TR15_081	NA		435 658.0	7 298 325.9	436 408.4	7 298 428.6	757.4
17/09/2021	00:56	ABP21308_TR15	Still	ABP21308_TR15_082	NA		435 658.0	7 298 325.9	436 421.7	7 298 429.9	770.7
17/09/2021	00:57	ABP21308_TR15	Still	ABP21308_TR15_083	NA		435 658.0	7 298 325.9	436 430.2	7 298 430.1	779.2
17/09/2021	00:57	ABP21308_TR15	Still	ABP21308_TR15_084	NA		435 658.0	7 298 325.9	436 432.2	7 298 430.8	781.3
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_085	NA		435 658.0	7 298 325.9	436 449.8	7 298 435.8	799.4
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_086	NA		435 658.0	7 298 325.9	436 452.5	7 298 435.2	802.0
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_087	NA		435 658.0	7 298 325.9	436 456.0	7 298 432.1	805.0
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_088	NA		435 658.0	7 298 325.9	436 458.2	7 298 430.0	806.9
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_089	NA		435 658.0	7 298 325.9	436 462.2	7 298 429.1	810.8
17/09/2021	00:58	ABP21308_TR15	Still	ABP21308_TR15_090	NA		435 658.0	7 298 325.9	436 466.8	7 298 432.4	815.8
17/09/2021	00:59	ABP21308_TR15	Still	ABP21308_TR15_091	NA		435 658.0	7 298 325.9	436 469.8	7 298 433.8	818.9
17/09/2021	01:00	ABP21308_TR15	Still	ABP21308_TR15_092	NA		435 658.0	7 298 325.9	436 495.0	7 298 423.0	842.6
17/09/2021	01:01	ABP21308_TR15	Still	ABP21308_TR15_093	NA		435 658.0	7 298 325.9	436 496.8	7 298 421.0	844.2
17/09/2021	01:01	ABP21308_TR15	Still	ABP21308_TR15_094	NA		435 658.0	7 298 325.9	436 502.5	7 298 421.9	849.9
17/09/2021	01:01	ABP21308_TR15	Still	ABP21308_TR15_095	NA		435 658.0	7 298 325.9	436 506.9	7 298 423.7	854.5
17/09/2021	01:01	ABP21308_TR15	Still	ABP21308_TR15_096	NA		435 658.0	7 298 325.9	436 508.4	7 298 424.0	856.0
17/09/2021	01:02	ABP21308_TR15	Still	ABP21308_TR15_097	NA		435 658.0	7 298 325.9	436 510.7	7 298 422.4	858.1
17/09/2021	01:02	ABP21308_TR15	Still	ABP21308_TR15_098	NA		435 658.0	7 298 325.9	436 513.8	7 298 421.1	861.1
17/09/2021	01:02	ABP21308_TR15	Still	ABP21308_TR15_099	NA		435 658.0	7 298 325.9	436 514.9	7 298 420.5	862.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	01:02	ABP21308_TR15	Still	ABP21308_TR15_100	NA		435 658.0	7 298 325.9	436 518.9	7 298 419.2	865.9
17/09/2021	01:02	ABP21308_TR15	Still	ABP21308_TR15_101	NA		435 658.0	7 298 325.9	436 519.8	7 298 418.7	866.8
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_102	NA		435 658.0	7 298 325.9	436 528.3	7 298 417.4	875.1
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_103	NA		435 658.0	7 298 325.9	436 531.3	7 298 416.2	878.0
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_104	NA		435 658.0	7 298 325.9	436 534.3	7 298 415.1	880.8
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_105	NA		435 658.0	7 298 325.9	436 535.4	7 298 414.2	881.8
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_106	NA		435 658.0	7 298 325.9	436 538.5	7 298 413.0	884.8
17/09/2021	01:03	ABP21308_TR15	Still	ABP21308_TR15_107	NA		435 658.0	7 298 325.9	436 540.8	7 298 411.8	887.0
17/09/2021	01:04	ABP21308_TR15	Still	ABP21308_TR15_108	NA		435 658.0	7 298 325.9	436 545.6	7 298 411.6	891.7
17/09/2021	01:04	ABP21308_TR15	Still	ABP21308_TR15_109	NA		435 658.0	7 298 325.9	436 547.6	7 298 411.4	893.7
17/09/2021	01:04	ABP21308_TR15	Still	ABP21308_TR15_110	NA		435 658.0	7 298 325.9	436 548.4	7 298 411.8	894.5
17/09/2021	01:04	ABP21308_TR15	Still	ABP21308_TR15_111	NA		435 658.0	7 298 325.9	436 549.9	7 298 413.6	896.2
17/09/2021	01:04	ABP21308_TR15	Still	ABP21308_TR15_112	NA		435 658.0	7 298 325.9	436 554.1	7 298 414.3	900.4
17/09/2021	01:05	ABP21308_TR15	Still	ABP21308_TR15_113	NA		435 658.0	7 298 325.9	436 556.5	7 298 414.4	902.8
17/09/2021	01:05	ABP21308_TR15	Still	ABP21308_TR15_114	NA		435 658.0	7 298 325.9	436 557.3	7 298 413.8	903.6
17/09/2021	01:05	ABP21308_TR15	Still	ABP21308_TR15_115	NA		435 658.0	7 298 325.9	436 560.8	7 298 411.8	906.9
17/09/2021	01:05	ABP21308_TR15	Still	ABP21308_TR15_116	NA		435 658.0	7 298 325.9	436 563.5	7 298 410.1	909.4
17/09/2021	01:05	ABP21308_TR15	Still	ABP21308_TR15_117	NA		435 658.0	7 298 325.9	436 567.3	7 298 408.4	913.0
17/09/2021	01:06	ABP21308_TR15	Still	ABP21308_TR15_118	NA		435 658.0	7 298 325.9	436 572.1	7 298 409.4	917.9
17/09/2021	01:06	ABP21308_TR15	Still	ABP21308_TR15_119	NA		435 658.0	7 298 325.9	436 576.0	7 298 416.2	922.4
17/09/2021	01:07	ABP21308_TR15	Still	ABP21308_TR15_120	NA		435 658.0	7 298 325.9	436 580.6	7 298 425.7	928.0
17/09/2021	01:08	ABP21308_TR15	Still	ABP21308_TR15_121	NA		435 658.0	7 298 325.9	436 575.7	7 298 439.0	924.6
17/09/2021	01:09	ABP21308_TR15	Still	ABP21308_TR15_122	NA		435 658.0	7 298 325.9	436 580.0	7 298 451.3	930.5
17/09/2021	01:09	ABP21308_TR15	Still	ABP21308_TR15_123	NA		435 658.0	7 298 325.9	436 586.1	7 298 451.3	936.5
17/09/2021	01:10	ABP21308_TR15	Still	ABP21308_TR15_124	NA		435 658.0	7 298 325.9	436 596.7	7 298 454.4	947.5
17/09/2021	01:10	ABP21308_TR15	Still	ABP21308_TR15_125	NA		435 658.0	7 298 325.9	436 605.2	7 298 455.6	956.0
17/09/2021	01:10	ABP21308_TR15	Still	ABP21308_TR15_126	NA		435 658.0	7 298 325.9	436 606.8	7 298 457.0	957.8
17/09/2021	01:11	ABP21308_TR15	Still	ABP21308_TR15_127	NA		435 658.0	7 298 325.9	436 615.0	7 298 458.6	966.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	01:12	ABP21308_TR15	Still	ABP21308_TR15_128	NA		435 658.0	7 298 325.9	436 627.7	7 298 457.0	978.5
17/09/2021	01:12	ABP21308_TR15	Still	ABP21308_TR15_129	NA		435 658.0	7 298 325.9	436 629.4	7 298 457.2	980.2
17/09/2021	01:13	ABP21308_TR15	Still	ABP21308_TR15_130	NA		435 658.0	7 298 325.9	436 638.8	7 298 459.8	989.9
17/09/2021	01:14	ABP21308_TR15	Still	ABP21308_TR15_131	NA		435 658.0	7 298 325.9	436 648.1	7 298 459.9	999.1
17/09/2021	01:14	ABP21308_TR15	Still	ABP21308_TR15_132	NA		435 658.0	7 298 325.9	436 654.4	7 298 462.0	1005.7
17/09/2021	01:15	ABP21308_TR15	Still	ABP21308_TR15_133	NA		435 658.0	7 298 325.9	436 665.7	7 298 463.6	1017.1
17/09/2021	01:16	ABP21308_TR15	Still	ABP21308_TR15_134	NA		435 658.0	7 298 325.9	436 693.3	7 298 467.3	1044.9
17/09/2021	01:16	ABP21308_TR15	Still	ABP21308_TR15_135	NA		435 658.0	7 298 325.9	436 693.8	7 298 467.1	1045.4
17/09/2021	01:18	ABP21308_TR15	Still	ABP21308_TR15_136	NA		435 658.0	7 298 325.9	436 710.3	7 298 470.1	1062.1
17/09/2021	01:19	ABP21308_TR15	Still	ABP21308_TR15_137	NA		435 658.0	7 298 325.9	436 725.0	7 298 471.2	1076.8
17/09/2021	01:20	ABP21308_TR15	Still	ABP21308_TR15_138	NA		435 658.0	7 298 325.9	436 742.5	7 298 475.1	1094.7
17/09/2021	01:20	ABP21308_TR15	Still	ABP21308_TR15_139	NA		435 658.0	7 298 325.9	436 743.9	7 298 475.3	1096.1
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_140	NA		435 658.0	7 298 325.9	436 757.0	7 298 476.3	1109.2
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_141	NA		435 658.0	7 298 325.9	436 757.4	7 298 475.8	1109.6
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_142	NA		435 658.0	7 298 325.9	436 757.7	7 298 475.6	1109.8
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_143	NA		435 658.0	7 298 325.9	436 758.7	7 298 476.4	1110.9
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_144	NA		435 658.0	7 298 325.9	436 762.1	7 298 476.3	1114.3
17/09/2021	01:21	ABP21308_TR15	Still	ABP21308_TR15_145	NA		435 658.0	7 298 325.9	436 763.2	7 298 477.0	1115.5
17/09/2021	01:22	ABP21308_TR15	Still	ABP21308_TR15_146	NA		435 658.0	7 298 325.9	436 772.8	7 298 477.3	1125.0
17/09/2021	01:23	ABP21308_TR15	Still	ABP21308_TR15_147	NA		435 658.0	7 298 325.9	436 793.5	7 298 481.6	1146.1
17/09/2021	01:24	ABP21308_TR15	Still	ABP21308_TR15_148	NA		435 658.0	7 298 325.9	436 802.2	7 298 482.0	1154.8
17/09/2021	01:25	ABP21308_TR15	Still	ABP21308_TR15_149	NA		435 658.0	7 298 325.9	436 816.2	7 298 483.1	1168.8
17/09/2021	01:25	ABP21308_TR15	Still	ABP21308_TR15_150	NA		435 658.0	7 298 325.9	436 817.8	7 298 483.6	1170.5
17/09/2021	01:25	ABP21308_TR15	Still	ABP21308_TR15_151	NA		435 658.0	7 298 325.9	436 819.2	7 298 483.0	1171.8
17/09/2021	01:25	ABP21308_TR15	Still	ABP21308_TR15_152	NA		435 658.0	7 298 325.9	436 820.6	7 298 483.1	1173.2
17/09/2021	01:25	ABP21308_TR15	Still	ABP21308_TR15_153	NA		435 658.0	7 298 325.9	436 820.2	7 298 483.5	1172.8
17/09/2021	01:27	ABP21308_TR15	Still	ABP21308_TR15_154	NA		435 658.0	7 298 325.9	436 848.0	7 298 489.7	1201.2
17/09/2021	01:28	ABP21308_TR15	Still	ABP21308_TR15_155	NA		435 658.0	7 298 325.9	436 852.4	7 298 489.6	1205.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	01:28	ABP21308_TR15	Still	ABP21308_TR15_156	NA		435 658.0	7 298 325.9	436 857.3	7 298 490.0	1210.5
17/09/2021	01:29	ABP21308_TR15	Still	ABP21308_TR15_157	NA		435 658.0	7 298 325.9	436 877.3	7 298 491.2	1230.5
17/09/2021	01:29	ABP21308_TR15	Still	ABP21308_TR15_158	NA		435 658.0	7 298 325.9	436 881.7	7 298 491.9	1234.9
17/09/2021	01:30	ABP21308_TR15	Still	ABP21308_TR15_159	NA		435 658.0	7 298 325.9	436 885.1	7 298 493.0	1238.4
17/09/2021	01:30	ABP21308_TR15	Still	ABP21308_TR15_160	NA		435 658.0	7 298 325.9	436 888.1	7 298 493.7	1241.5
17/09/2021	01:30	ABP21308_TR15	Still	ABP21308_TR15_161	NA		435 658.0	7 298 325.9	436 892.3	7 298 496.1	1246.0
17/09/2021	01:30	ABP21308_TR15	Still	ABP21308_TR15_162	NA		435 658.0	7 298 325.9	436 895.3	7 298 498.0	1249.2
17/09/2021	01:31	ABP21308_TR15	Still	ABP21308_TR15_163	NA		435 658.0	7 298 325.9	436 897.7	7 298 499.4	1251.8
17/09/2021	01:31	ABP21308_TR15	Still	ABP21308_TR15_164	NA		435 658.0	7 298 325.9	436 899.3	7 298 504.2	1254.0
17/09/2021	01:31	ABP21308_TR15	Still	ABP21308_TR15_165	NA		435 658.0	7 298 325.9	436 903.0	7 298 510.3	1258.6
17/09/2021	01:32	ABP21308_TR15	Still	ABP21308_TR15_166	NA		435 658.0	7 298 325.9	436 910.2	7 298 516.9	1266.7
17/09/2021	01:32	ABP21308_TR15	Still	ABP21308_TR15_167	NA		435 658.0	7 298 325.9	436 916.5	7 298 520.8	1273.5
17/09/2021	01:32	ABP21308_TR15	Still	ABP21308_TR15_168	NA		435 658.0	7 298 325.9	436 917.6	7 298 522.3	1274.8
17/09/2021	01:33	ABP21308_TR15	Still	ABP21308_TR15_169	NA		435 658.0	7 298 325.9	436 922.9	7 298 526.0	1280.6
17/09/2021	01:33	ABP21308_TR15	Still	ABP21308_TR15_170	NA		435 658.0	7 298 325.9	436 926.3	7 298 532.9	1285.1
17/09/2021	01:33	ABP21308_TR15	Still	ABP21308_TR15_171	NA		435 658.0	7 298 325.9	436 927.1	7 298 534.6	1286.1
17/09/2021	01:34	ABP21308_TR15	Still	ABP21308_TR15_172	NA		435 658.0	7 298 325.9	436 929.8	7 298 539.9	1289.7
17/09/2021	01:35	ABP21308_TR15	Still	ABP21308_TR15_173	NA		435 658.0	7 298 325.9	436 944.2	7 298 529.5	1302.2
17/09/2021	01:35	ABP21308_TR15	Still	ABP21308_TR15_174	NA		435 658.0	7 298 325.9	436 945.1	7 298 529.0	1303.0
17/09/2021	01:35	ABP21308_TR15	Still	ABP21308_TR15_175	NA		435 658.0	7 298 325.9	436 951.9	7 298 525.1	1309.1
17/09/2021	01:35	ABP21308_TR15	Still	ABP21308_TR15_176	NA		435 658.0	7 298 325.9	436 952.6	7 298 525.4	1309.9
17/09/2021	01:35	ABP21308_TR15	Still	ABP21308_TR15_177	NA		435 658.0	7 298 325.9	436 952.8	7 298 525.8	1310.1
17/09/2021	01:36	ABP21308_TR15	Still	ABP21308_TR15_178	NA		435 658.0	7 298 325.9	436 953.3	7 298 528.2	1311.0
17/09/2021	01:36	ABP21308_TR15	Still	ABP21308_TR15_179	NA		435 658.0	7 298 325.9	436 961.9	7 298 524.9	1319.0
17/09/2021	01:36	ABP21308_TR15	Still	ABP21308_TR15_180	NA		435 658.0	7 298 325.9	436 962.6	7 298 524.2	1319.6
17/09/2021	01:36	ABP21308_TR15	Still	ABP21308_TR15_181	NA		435 658.0	7 298 325.9	436 963.1	7 298 523.6	1320.0
17/09/2021	01:37	ABP21308_TR15	Still	ABP21308_TR15_182	NA		435 658.0	7 298 325.9	436 968.9	7 298 516.0	1324.6
17/09/2021	01:37	ABP21308_TR15	Still	ABP21308_TR15_183	NA		435 658.0	7 298 325.9	436 970.3	7 298 513.7	1325.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	01:38	ABP21308_TR15	Still	ABP21308_TR15_184	NA		435 658.0	7 298 325.9	436 974.2	7 298 505.7	1328.4
17/09/2021	01:38	ABP21308_TR15	Still	ABP21308_TR15_185	NA		435 658.0	7 298 325.9	436 986.9	7 298 498.2	1340.0
17/09/2021	01:39	ABP21308_TR15	Still	ABP21308_TR15_186	NA		435 658.0	7 298 325.9	437 006.1	7 298 490.5	1358.1
17/09/2021	01:40	ABP21308_TR15	Still	ABP21308_TR15_187	NA		435 658.0	7 298 325.9	437 010.9	7 298 483.8	1362.1
17/09/2021	01:40	ABP21308_TR15	Still	ABP21308_TR15_188	NA		435 658.0	7 298 325.9	437 011.0	7 298 483.5	1362.1
17/09/2021	01:40	ABP21308_TR15	Still	ABP21308_TR15_189	NA		435 658.0	7 298 325.9	437 018.1	7 298 476.2	1368.4
17/09/2021	01:41	ABP21308_TR15	Still	ABP21308_TR15_190	NA		435 658.0	7 298 325.9	437 022.8	7 298 474.1	1372.8
17/09/2021	01:41	ABP21308_TR15	Still	ABP21308_TR15_191	NA		435 658.0	7 298 325.9	437 027.9	7 298 476.4	1378.1
17/09/2021	01:41	ABP21308_TR15	Still	ABP21308_TR15_192	NA		435 658.0	7 298 325.9	437 031.4	7 298 476.8	1381.7
17/09/2021	01:42	ABP21308_TR15	Still	ABP21308_TR15_193	NA		435 658.0	7 298 325.9	437 036.7	7 298 489.2	1388.3
17/09/2021	01:42	ABP21308_TR15	Still	ABP21308_TR15_194	NA		435 658.0	7 298 325.9	437 037.5	7 298 491.3	1389.4
17/09/2021	01:42	ABP21308_TR15	Still	ABP21308_TR15_195	NA		435 658.0	7 298 325.9	437 037.4	7 298 491.8	1389.3
17/09/2021	01:42	ABP21308_TR15	Still	ABP21308_TR15_196	NA		435 658.0	7 298 325.9	437 037.4	7 298 492.4	1389.4
17/09/2021	01:42	ABP21308_TR15	Still	ABP21308_TR15_197	NA		435 658.0	7 298 325.9	437 038.4	7 298 494.6	1390.7
17/09/2021	01:44	ABP21308_TR15	Still	ABP21308_TR15_198	NA		435 658.0	7 298 325.9	437 046.2	7 298 496.6	1398.7
17/09/2021	01:44	ABP21308_TR15	Still	ABP21308_TR15_199	NA		435 658.0	7 298 325.9	437 046.4	7 298 496.2	1398.8
17/09/2021	01:44	ABP21308_TR15	Still	ABP21308_TR15_200	NA		435 658.0	7 298 325.9	437 050.5	7 298 497.2	1403.0
17/09/2021	01:44	ABP21308_TR15	Still	ABP21308_TR15_201	NA		435 658.0	7 298 325.9	437 050.8	7 298 497.1	1403.3
17/09/2021	01:45	ABP21308_TR15	Still	ABP21308_TR15_202	NA		435 658.0	7 298 325.9	437 062.3	7 298 509.9	1416.3
17/09/2021	01:46	ABP21308_TR15	Still	ABP21308_TR15_203	NA		435 658.0	7 298 325.9	437 067.4	7 298 514.1	1421.9
17/09/2021	01:46	ABP21308_TR15	Still	ABP21308_TR15_204	NA		435 658.0	7 298 325.9	437 071.5	7 298 519.7	1426.7
17/09/2021	01:47	ABP21308_TR15	Still	ABP21308_TR15_205	NA		435 658.0	7 298 325.9	437 075.3	7 298 522.5	1430.9
17/09/2021	01:47	ABP21308_TR15	Still	ABP21308_TR15_206	NA		435 658.0	7 298 325.9	437 078.4	7 298 524.3	1434.2
17/09/2021	01:47	ABP21308_TR15	Still	ABP21308_TR15_207	NA		435 658.0	7 298 325.9	437 085.0	7 298 528.5	1441.3
17/09/2021	01:47	ABP21308_TR15	Still	ABP21308_TR15_208	NA		435 658.0	7 298 325.9	437 086.2	7 298 529.4	1442.6
17/09/2021	01:48	ABP21308_TR15	Still	ABP21308_TR15_209	NA		435 658.0	7 298 325.9	437 087.1	7 298 533.5	1444.1
17/09/2021	01:48	ABP21308_TR15	Still	ABP21308_TR15_210	NA		435 658.0	7 298 325.9	437 092.6	7 298 535.3	1449.8
17/09/2021	01:49	ABP21308_TR15	Still	ABP21308_TR15_211	NA		435 658.0	7 298 325.9	437 106.1	7 298 537.9	1463.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	01:49	ABP21308_TR15	Still	ABP21308_TR15_212	NA		435 658.0	7 298 325.9	437 107.0	7 298 538.0	1464.4
17/09/2021	01:50	ABP21308_TR15	Still	ABP21308_TR15_213	NA		435 658.0	7 298 325.9	437 121.0	7 298 541.5	1478.8
17/09/2021	01:50	ABP21308_TR15	Still	ABP21308_TR15_214	NA		435 658.0	7 298 325.9	437 129.3	7 298 533.5	1485.9
17/09/2021	01:51	ABP21308_TR15	Still	ABP21308_TR15_215	NA		435 658.0	7 298 325.9	437 138.6	7 298 529.3	1494.5
17/09/2021	01:54	ABP21308_TR15	Still	ABP21308_TR15_216	NA		435 658.0	7 298 325.9	437 179.8	7 298 533.0	1535.8
17/09/2021	01:54	ABP21308_TR15	Still	ABP21308_TR15_217	NA		435 658.0	7 298 325.9	437 181.2	7 298 533.4	1537.3
17/09/2021	01:55	ABP21308_TR15	Still	ABP21308_TR15_218	NA		435 658.0	7 298 325.9	437 187.2	7 298 534.4	1543.3
17/09/2021	01:55	ABP21308_TR15	Still	ABP21308_TR15_219	NA		435 658.0	7 298 325.9	437 188.5	7 298 532.8	1544.4
17/09/2021	01:55	ABP21308_TR15	Still	ABP21308_TR15_220	NA		435 658.0	7 298 325.9	437 190.3	7 298 529.7	1545.8
17/09/2021	01:57	ABP21308_TR15	Still	ABP21308_TR15_221	NA		435 658.0	7 298 325.9	437 210.3	7 298 540.5	1567.1
17/09/2021	01:57	ABP21308_TR15	Still	ABP21308_TR15_222	NA		435 658.0	7 298 325.9	437 213.8	7 298 541.0	1570.6
17/09/2021	01:58	ABP21308_TR15	Still	ABP21308_TR15_223	NA		435 658.0	7 298 325.9	437 228.1	7 298 540.8	1584.7
17/09/2021	02:00	ABP21308_TR15	Still	ABP21308_TR15_224	NA		435 658.0	7 298 325.9	437 254.5	7 298 543.9	1611.3
17/09/2021	02:00	ABP21308_TR15	Still	ABP21308_TR15_225	NA		435 658.0	7 298 325.9	437 260.0	7 298 547.1	1617.2
17/09/2021	02:01	ABP21308_TR15	Still	ABP21308_TR15_226	NA		435 658.0	7 298 325.9	437 282.5	7 298 552.0	1640.2
17/09/2021	02:01	ABP21308_TR15	Still	ABP21308_TR15_227	NA		435 658.0	7 298 325.9	437 282.9	7 298 553.0	1640.7
17/09/2021	02:01	ABP21308_TR15	Still	ABP21308_TR15_228	NA		435 658.0	7 298 325.9	437 284.6	7 298 553.4	1642.4
17/09/2021	02:04	ABP21308_TR15	Still	ABP21308_TR15_229	NA		435 658.0	7 298 325.9	437 329.1	7 298 554.0	1686.6
17/09/2021	02:04	ABP21308_TR15	Still	ABP21308_TR15_230	NA		435 658.0	7 298 325.9	437 332.3	7 298 553.5	1689.7
17/09/2021	02:05	ABP21308_TR15	Still	ABP21308_TR15_231	NA		435 658.0	7 298 325.9	437 335.5	7 298 555.7	1693.2
17/09/2021	02:07	ABP21308_TR15	Still	ABP21308_TR15_232	NA		435 658.0	7 298 325.9	437 375.0	7 298 560.4	1732.9
17/09/2021	02:10	ABP21308_TR15	Still	ABP21308_TR15_233	NA		435 658.0	7 298 325.9	437 415.8	7 298 567.0	1774.3
17/09/2021	02:13	ABP21308_TR15	Still	ABP21308_TR15_234	NA		435 658.0	7 298 325.9	437 459.4	7 298 571.5	1818.1
17/09/2021	02:13	ABP21308_TR15	Still	ABP21308_TR15_235	NA		435 658.0	7 298 325.9	437 460.5	7 298 571.3	1819.1
17/09/2021	02:16	ABP21308_TR15	Still	ABP21308_TR15_236	NA		435 658.0	7 298 325.9	437 508.4	7 298 579.6	1867.7
17/09/2021	02:17	ABP21308_TR15	Still	ABP21308_TR15_237	NA		435 658.0	7 298 325.9	437 523.6	7 298 583.1	1883.2
17/09/2021	02:19	ABP21308_TR15	Still	ABP21308_TR15_238	NA		435 658.0	7 298 325.9	437 556.8	7 298 576.1	1915.2
17/09/2021	02:20	ABP21308_TR15	Still	ABP21308_TR15_239	NA		435 658.0	7 298 325.9	437 572.7	7 298 561.2	1929.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	02:22	ABP21308_TR15	Still	ABP21308_TR15_240	NA		435 658.0	7 298 325.9	437 594.2	7 298 559.7	1950.3
17/09/2021	02:23	ABP21308_TR15	Still	ABP21308_TR15_241	NA		435 658.0	7 298 325.9	437 608.8	7 298 571.0	1966.1
17/09/2021	02:23	ABP21308_TR15	Still	ABP21308_TR15_242	NA		435 658.0	7 298 325.9	437 615.2	7 298 575.7	1973.1
17/09/2021	02:24	ABP21308_TR15	Still	ABP21308_TR15_243	NA		435 658.0	7 298 325.9	437 619.3	7 298 578.0	1977.4
17/09/2021	02:24	ABP21308_TR15	Still	ABP21308_TR15_244	NA		435 658.0	7 298 325.9	437 626.2	7 298 579.5	1984.5
17/09/2021	02:25	ABP21308_TR15	Still	ABP21308_TR15_245	NA		435 658.0	7 298 325.9	437 634.4	7 298 588.9	1993.8
17/09/2021	02:25	ABP21308_TR15	Still	ABP21308_TR15_246	NA		435 658.0	7 298 325.9	437 639.3	7 298 595.5	1999.6
17/09/2021	02:25	ABP21308_TR15	Still	ABP21308_TR15_247	NA		435 658.0	7 298 325.9	437 640.9	7 298 598.9	2001.6
17/09/2021	02:25	ABP21308_TR15	Still	ABP21308_TR15_248	NA		435 658.0	7 298 325.9	437 645.5	7 298 598.6	2006.1
17/09/2021	02:26	ABP21308_TR15	Video	EOL	16	341.2	435 658.0	7 298 325.9	437 646.4	7 298 597.8	2006.9
17/09/2021	18:17	ABP21308_TR16	Video	SOL	27	327.6	435 555.8	7 297 734.2	435 555.8	7 297 734.2	0.0
17/09/2021	18:17	ABP21308_TR16	Still	ABP21308_TR16_001	NA		435 555.8	7 297 734.2	435 557.0	7 297 735.0	1.4
17/09/2021	18:17	ABP21308_TR16	Still	ABP21308_TR16_002	NA		435 555.8	7 297 734.2	435 564.8	7 297 730.5	9.7
17/09/2021	18:18	ABP21308_TR16	Still	ABP21308_TR16_003	NA		435 555.8	7 297 734.2	435 566.0	7 297 729.7	11.1
17/09/2021	18:18	ABP21308_TR16	Still	ABP21308_TR16_004	NA		435 555.8	7 297 734.2	435 566.8	7 297 728.2	12.5
17/09/2021	18:18	ABP21308_TR16	Still	ABP21308_TR16_005	NA		435 555.8	7 297 734.2	435 568.1	7 297 726.7	14.4
17/09/2021	18:18	ABP21308_TR16	Still	ABP21308_TR16_006	NA		435 555.8	7 297 734.2	435 570.2	7 297 724.5	17.4
17/09/2021	18:19	ABP21308_TR16	Still	ABP21308_TR16_007	NA		435 555.8	7 297 734.2	435 577.4	7 297 722.3	24.7
17/09/2021	18:22	ABP21308_TR16	Still	ABP21308_TR16_008	NA		435 555.8	7 297 734.2	435 624.8	7 297 699.3	77.3
17/09/2021	18:25	ABP21308_TR16	Still	ABP21308_TR16_009	NA		435 555.8	7 297 734.2	435 662.3	7 297 679.0	120.0
17/09/2021	18:27	ABP21308_TR16	Still	ABP21308_TR16_010	NA		435 555.8	7 297 734.2	435 675.7	7 297 670.6	135.7
17/09/2021	18:27	ABP21308_TR16	Still	ABP21308_TR16_011	NA		435 555.8	7 297 734.2	435 680.3	7 297 668.0	141.0
17/09/2021	18:27	ABP21308_TR16	Still	ABP21308_TR16_012	NA		435 555.8	7 297 734.2	435 682.1	7 297 668.0	142.6
17/09/2021	18:27	ABP21308_TR16	Still	ABP21308_TR16_013	NA		435 555.8	7 297 734.2	435 684.9	7 297 666.8	145.6
17/09/2021	18:27	ABP21308_TR16	Still	ABP21308_TR16_014	NA		435 555.8	7 297 734.2	435 686.6	7 297 666.3	147.4
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_015	NA		435 555.8	7 297 734.2	435 708.7	7 297 657.2	171.2
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_016	NA		435 555.8	7 297 734.2	435 711.0	7 297 655.3	174.1
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_017	NA		435 555.8	7 297 734.2	435 714.0	7 297 654.7	177.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_018	NA		435 555.8	7 297 734.2	435 714.8	7 297 654.2	178.0
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_019	NA		435 555.8	7 297 734.2	435 715.2	7 297 653.4	178.7
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_020	NA		435 555.8	7 297 734.2	435 716.0	7 297 653.1	179.6
17/09/2021	18:29	ABP21308_TR16	Still	ABP21308_TR16_021	NA		435 555.8	7 297 734.2	435 716.8	7 297 651.8	180.9
17/09/2021	18:30	ABP21308_TR16	Still	ABP21308_TR16_022	NA		435 555.8	7 297 734.2	435 717.5	7 297 649.9	182.4
17/09/2021	18:30	ABP21308_TR16	Still	ABP21308_TR16_023	NA		435 555.8	7 297 734.2	435 718.8	7 297 650.1	183.4
17/09/2021	18:30	ABP21308_TR16	Still	ABP21308_TR16_024	NA		435 555.8	7 297 734.2	435 720.7	7 297 647.2	186.4
17/09/2021	18:31	ABP21308_TR16	Still	ABP21308_TR16_025	NA		435 555.8	7 297 734.2	435 741.0	7 297 634.3	210.4
17/09/2021	18:31	ABP21308_TR16	Still	ABP21308_TR16_026	NA		435 555.8	7 297 734.2	435 742.6	7 297 633.4	212.3
17/09/2021	18:31	ABP21308_TR16	Still	ABP21308_TR16_027	NA		435 555.8	7 297 734.2	435 746.4	7 297 632.3	216.1
17/09/2021	18:32	ABP21308_TR16	Still	ABP21308_TR16_028	NA		435 555.8	7 297 734.2	435 760.6	7 297 628.1	230.7
17/09/2021	18:32	ABP21308_TR16	Still	ABP21308_TR16_029	NA		435 555.8	7 297 734.2	435 762.1	7 297 626.8	232.6
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_030	NA		435 555.8	7 297 734.2	435 763.4	7 297 624.7	234.7
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_031	NA		435 555.8	7 297 734.2	435 764.3	7 297 621.1	237.2
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_032	NA		435 555.8	7 297 734.2	435 763.8	7 297 621.0	236.8
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_033	NA		435 555.8	7 297 734.2	435 762.9	7 297 621.0	236.0
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_034	NA		435 555.8	7 297 734.2	435 763.1	7 297 620.4	236.5
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_035	NA		435 555.8	7 297 734.2	435 762.9	7 297 620.3	236.4
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_036	NA		435 555.8	7 297 734.2	435 762.3	7 297 618.9	236.5
17/09/2021	18:33	ABP21308_TR16	Still	ABP21308_TR16_037	NA		435 555.8	7 297 734.2	435 761.5	7 297 619.8	235.4
17/09/2021	18:34	ABP21308_TR16	Still	ABP21308_TR16_038	NA		435 555.8	7 297 734.2	435 762.1	7 297 620.0	235.8
17/09/2021	18:34	ABP21308_TR16	Still	ABP21308_TR16_039	NA		435 555.8	7 297 734.2	435 762.0	7 297 620.1	235.7
17/09/2021	18:34	ABP21308_TR16	Still	ABP21308_TR16_040	NA		435 555.8	7 297 734.2	435 762.2	7 297 619.9	235.9
17/09/2021	18:35	ABP21308_TR16	Still	ABP21308_TR16_041	NA		435 555.8	7 297 734.2	435 762.5	7 297 619.8	236.2
17/09/2021	18:35	ABP21308_TR16	Still	ABP21308_TR16_042	NA		435 555.8	7 297 734.2	435 763.1	7 297 619.9	236.7
17/09/2021	18:35	ABP21308_TR16	Still	ABP21308_TR16_043	NA		435 555.8	7 297 734.2	435 766.8	7 297 618.2	240.8
17/09/2021	18:36	ABP21308_TR16	Still	ABP21308_TR16_044	NA		435 555.8	7 297 734.2	435 767.2	7 297 617.6	241.4
17/09/2021	18:36	ABP21308_TR16	Still	ABP21308_TR16_045	NA		435 555.8	7 297 734.2	435 766.4	7 297 617.0	241.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	18:36	ABP21308_TR16	Still	ABP21308_TR16_046	NA		435 555.8	7 297 734.2	435 766.1	7 297 615.9	241.3
17/09/2021	18:37	ABP21308_TR16	Still	ABP21308_TR16_047	NA		435 555.8	7 297 734.2	435 763.5	7 297 611.2	241.4
17/09/2021	18:37	ABP21308_TR16	Still	ABP21308_TR16_048	NA		435 555.8	7 297 734.2	435 762.6	7 297 609.5	241.5
17/09/2021	18:37	ABP21308_TR16	Still	ABP21308_TR16_049	NA		435 555.8	7 297 734.2	435 760.9	7 297 603.8	243.0
17/09/2021	18:38	ABP21308_TR16	Still	ABP21308_TR16_050	NA		435 555.8	7 297 734.2	435 760.1	7 297 599.2	244.9
17/09/2021	18:39	ABP21308_TR16	Still	ABP21308_TR16_051	NA		435 555.8	7 297 734.2	435 757.4	7 297 587.9	249.1
17/09/2021	18:39	ABP21308_TR16	Still	ABP21308_TR16_052	NA		435 555.8	7 297 734.2	435 756.5	7 297 587.1	248.8
17/09/2021	18:39	ABP21308_TR16	Still	ABP21308_TR16_053	NA		435 555.8	7 297 734.2	435 757.5	7 297 583.0	252.1
17/09/2021	18:39	ABP21308_TR16	Still	ABP21308_TR16_054	NA		435 555.8	7 297 734.2	435 757.0	7 297 581.5	252.6
17/09/2021	18:40	ABP21308_TR16	Still	ABP21308_TR16_055	NA		435 555.8	7 297 734.2	435 756.7	7 297 581.0	252.6
17/09/2021	18:40	ABP21308_TR16	Still	ABP21308_TR16_056	NA		435 555.8	7 297 734.2	435 755.3	7 297 580.1	252.1
17/09/2021	18:40	ABP21308_TR16	Still	ABP21308_TR16_057	NA		435 555.8	7 297 734.2	435 754.6	7 297 579.4	252.0
17/09/2021	18:40	ABP21308_TR16	Still	ABP21308_TR16_058	NA		435 555.8	7 297 734.2	435 754.9	7 297 577.5	253.4
17/09/2021	18:40	ABP21308_TR16	Still	ABP21308_TR16_059	NA		435 555.8	7 297 734.2	435 756.0	7 297 576.7	254.7
17/09/2021	18:41	ABP21308_TR16	Still	ABP21308_TR16_060	NA		435 555.8	7 297 734.2	435 756.5	7 297 576.4	255.3
17/09/2021	18:41	ABP21308_TR16	Still	ABP21308_TR16_061	NA		435 555.8	7 297 734.2	435 758.7	7 297 576.6	256.9
17/09/2021	18:41	ABP21308_TR16	Still	ABP21308_TR16_062	NA		435 555.8	7 297 734.2	435 762.7	7 297 574.1	261.6
17/09/2021	18:44	ABP21308_TR16	Still	ABP21308_TR16_063	NA		435 555.8	7 297 734.2	435 807.3	7 297 603.3	283.5
17/09/2021	18:46	ABP21308_TR16	Still	ABP21308_TR16_064	NA		435 555.8	7 297 734.2	435 816.7	7 297 606.8	290.3
17/09/2021	18:46	ABP21308_TR16	Still	ABP21308_TR16_065	NA		435 555.8	7 297 734.2	435 822.0	7 297 604.5	296.1
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_066	NA		435 555.8	7 297 734.2	435 823.1	7 297 602.4	298.0
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_067	NA		435 555.8	7 297 734.2	435 826.1	7 297 598.1	302.6
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_068	NA		435 555.8	7 297 734.2	435 826.2	7 297 597.6	302.9
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_069	NA		435 555.8	7 297 734.2	435 827.5	7 297 595.8	304.9
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_070	NA		435 555.8	7 297 734.2	435 828.3	7 297 595.5	305.8
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_071	NA		435 555.8	7 297 734.2	435 828.5	7 297 595.1	306.1
17/09/2021	18:47	ABP21308_TR16	Still	ABP21308_TR16_072	NA		435 555.8	7 297 734.2	435 828.8	7 297 594.4	306.7
17/09/2021	18:48	ABP21308_TR16	Still	ABP21308_TR16_073	NA		435 555.8	7 297 734.2	435 829.1	7 297 593.3	307.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	18:48	ABP21308_TR16	Still	ABP21308_TR16_074	NA		435 555.8	7 297 734.2	435 829.6	7 297 592.5	308.3
17/09/2021	18:48	ABP21308_TR16	Still	ABP21308_TR16_075	NA		435 555.8	7 297 734.2	435 835.5	7 297 590.2	314.6
17/09/2021	18:48	ABP21308_TR16	Still	ABP21308_TR16_076	NA		435 555.8	7 297 734.2	435 836.2	7 297 589.5	315.5
17/09/2021	18:53	ABP21308_TR16	Still	ABP21308_TR16_077	NA		435 555.8	7 297 734.2	435 848.6	7 297 585.6	328.4
17/09/2021	18:54	ABP21308_TR16	Still	ABP21308_TR16_078	NA		435 555.8	7 297 734.2	435 855.6	7 297 578.8	337.7
17/09/2021	18:54	ABP21308_TR16	Still	ABP21308_TR16_079	NA		435 555.8	7 297 734.2	435 857.0	7 297 577.3	339.6
17/09/2021	18:54	ABP21308_TR16	Still	ABP21308_TR16_080	NA		435 555.8	7 297 734.2	435 858.3	7 297 577.3	340.8
17/09/2021	18:54	ABP21308_TR16	Still	ABP21308_TR16_081	NA		435 555.8	7 297 734.2	435 859.6	7 297 577.7	341.7
17/09/2021	18:54	ABP21308_TR16	Still	ABP21308_TR16_082	NA		435 555.8	7 297 734.2	435 861.4	7 297 576.9	343.7
17/09/2021	18:55	ABP21308_TR16	Still	ABP21308_TR16_083	NA		435 555.8	7 297 734.2	435 864.7	7 297 576.4	346.9
17/09/2021	18:55	ABP21308_TR16	Still	ABP21308_TR16_084	NA		435 555.8	7 297 734.2	435 865.4	7 297 575.8	347.8
17/09/2021	18:55	ABP21308_TR16	Still	ABP21308_TR16_085	NA		435 555.8	7 297 734.2	435 869.1	7 297 572.4	352.6
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_086	NA		435 555.8	7 297 734.2	435 871.1	7 297 571.6	354.8
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_087	NA		435 555.8	7 297 734.2	435 872.8	7 297 570.2	356.9
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_088	NA		435 555.8	7 297 734.2	435 875.4	7 297 568.5	360.0
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_089	NA		435 555.8	7 297 734.2	435 877.0	7 297 567.0	362.1
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_090	NA		435 555.8	7 297 734.2	435 878.3	7 297 565.4	364.0
17/09/2021	18:56	ABP21308_TR16	Still	ABP21308_TR16_091	NA		435 555.8	7 297 734.2	435 880.1	7 297 563.5	366.5
17/09/2021	18:57	ABP21308_TR16	Still	ABP21308_TR16_092	NA		435 555.8	7 297 734.2	435 884.0	7 297 561.9	370.7
17/09/2021	18:58	ABP21308_TR16	Still	ABP21308_TR16_093	NA		435 555.8	7 297 734.2	435 894.1	7 297 558.5	381.2
17/09/2021	18:58	ABP21308_TR16	Still	ABP21308_TR16_094	NA		435 555.8	7 297 734.2	435 895.8	7 297 557.0	383.4
17/09/2021	18:58	ABP21308_TR16	Still	ABP21308_TR16_095	NA		435 555.8	7 297 734.2	435 896.8	7 297 556.2	384.7
17/09/2021	18:58	ABP21308_TR16	Still	ABP21308_TR16_096	NA		435 555.8	7 297 734.2	435 899.6	7 297 552.4	388.9
17/09/2021	18:58	ABP21308_TR16	Still	ABP21308_TR16_097	NA		435 555.8	7 297 734.2	435 902.5	7 297 551.5	391.9
17/09/2021	18:59	ABP21308_TR16	Still	ABP21308_TR16_098	NA		435 555.8	7 297 734.2	435 906.4	7 297 550.0	396.0
17/09/2021	18:59	ABP21308_TR16	Still	ABP21308_TR16_099	NA		435 555.8	7 297 734.2	435 908.8	7 297 548.7	398.8
17/09/2021	18:59	ABP21308_TR16	Still	ABP21308_TR16_100	NA		435 555.8	7 297 734.2	435 914.7	7 297 548.4	404.1
17/09/2021	18:59	ABP21308_TR16	Still	ABP21308_TR16_101	NA		435 555.8	7 297 734.2	435 920.5	7 297 547.8	409.6

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Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	19:00	ABP21308_TR16	Still	ABP21308_TR16_102	NA		435 555.8	7 297 734.2	435 925.1	7 297 546.9	414.1
17/09/2021	19:00	ABP21308_TR16	Still	ABP21308_TR16_103	NA		435 555.8	7 297 734.2	435 931.6	7 297 545.8	420.4
17/09/2021	19:01	ABP21308_TR16	Still	ABP21308_TR16_104	NA		435 555.8	7 297 734.2	435 953.0	7 297 533.2	445.2
17/09/2021	19:01	ABP21308_TR16	Still	ABP21308_TR16_105	NA		435 555.8	7 297 734.2	435 953.4	7 297 533.1	445.6
17/09/2021	19:02	ABP21308_TR16	Still	ABP21308_TR16_106	NA		435 555.8	7 297 734.2	435 958.9	7 297 527.1	453.2
17/09/2021	19:02	ABP21308_TR16	Still	ABP21308_TR16_107	NA		435 555.8	7 297 734.2	435 960.5	7 297 524.5	455.8
17/09/2021	19:04	ABP21308_TR16	Still	ABP21308_TR16_108	NA		435 555.8	7 297 734.2	435 976.3	7 297 519.4	472.2
17/09/2021	19:04	ABP21308_TR16	Still	ABP21308_TR16_109	NA		435 555.8	7 297 734.2	435 982.0	7 297 517.4	478.2
17/09/2021	19:04	ABP21308_TR16	Still	ABP21308_TR16_110	NA		435 555.8	7 297 734.2	435 984.2	7 297 516.6	480.5
17/09/2021	19:05	ABP21308_TR16	Still	ABP21308_TR16_111	NA		435 555.8	7 297 734.2	435 986.9	7 297 515.6	483.4
17/09/2021	19:05	ABP21308_TR16	Still	ABP21308_TR16_112	NA		435 555.8	7 297 734.2	435 989.7	7 297 514.7	486.3
17/09/2021	19:05	ABP21308_TR16	Still	ABP21308_TR16_113	NA		435 555.8	7 297 734.2	436 001.3	7 297 508.1	499.6
17/09/2021	19:07	ABP21308_TR16	Still	ABP21308_TR16_114	NA		435 555.8	7 297 734.2	436 018.6	7 297 495.5	520.7
17/09/2021	19:08	ABP21308_TR16	Still	ABP21308_TR16_115	NA		435 555.8	7 297 734.2	436 021.5	7 297 493.5	524.2
17/09/2021	19:08	ABP21308_TR16	Still	ABP21308_TR16_116	NA		435 555.8	7 297 734.2	436 024.2	7 297 493.6	526.6
17/09/2021	19:09	ABP21308_TR16	Still	ABP21308_TR16_117	NA		435 555.8	7 297 734.2	436 041.4	7 297 484.2	546.2
17/09/2021	19:11	ABP21308_TR16	Still	ABP21308_TR16_118	NA		435 555.8	7 297 734.2	436 075.0	7 297 466.8	584.0
17/09/2021	19:11	ABP21308_TR16	Still	ABP21308_TR16_119	NA		435 555.8	7 297 734.2	436 076.9	7 297 466.3	585.9
17/09/2021	19:12	ABP21308_TR16	Still	ABP21308_TR16_120	NA		435 555.8	7 297 734.2	436 077.3	7 297 464.9	586.9
17/09/2021	19:12	ABP21308_TR16	Still	ABP21308_TR16_121	NA		435 555.8	7 297 734.2	436 079.5	7 297 464.6	589.0
17/09/2021	19:12	ABP21308_TR16	Still	ABP21308_TR16_122	NA		435 555.8	7 297 734.2	436 082.4	7 297 462.9	592.4
17/09/2021	19:12	ABP21308_TR16	Still	ABP21308_TR16_123	NA		435 555.8	7 297 734.2	436 088.4	7 297 460.9	598.6
17/09/2021	19:13	ABP21308_TR16	Still	ABP21308_TR16_124	NA		435 555.8	7 297 734.2	436 102.7	7 297 454.5	614.3
17/09/2021	19:14	ABP21308_TR16	Still	ABP21308_TR16_125	NA		435 555.8	7 297 734.2	436 119.7	7 297 443.1	634.6
17/09/2021	19:15	ABP21308_TR16	Still	ABP21308_TR16_126	NA		435 555.8	7 297 734.2	436 125.0	7 297 441.1	640.2
17/09/2021	19:15	ABP21308_TR16	Still	ABP21308_TR16_127	NA		435 555.8	7 297 734.2	436 126.7	7 297 441.7	641.5
17/09/2021	19:15	ABP21308_TR16	Still	ABP21308_TR16_128	NA		435 555.8	7 297 734.2	436 133.5	7 297 438.9	648.8
17/09/2021	19:16	ABP21308_TR16	Still	ABP21308_TR16_129	NA		435 555.8	7 297 734.2	436 145.5	7 297 433.1	662.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	19:16	ABP21308_TR16	Still	ABP21308_TR16_130	NA		435 555.8	7 297 734.2	436 148.2	7 297 431.8	665.1
17/09/2021	19:16	ABP21308_TR16	Still	ABP21308_TR16_131	NA		435 555.8	7 297 734.2	436 150.7	7 297 430.2	668.1
17/09/2021	19:16	ABP21308_TR16	Still	ABP21308_TR16_132	NA		435 555.8	7 297 734.2	436 153.2	7 297 428.3	671.2
17/09/2021	19:16	ABP21308_TR16	Still	ABP21308_TR16_133	NA		435 555.8	7 297 734.2	436 155.2	7 297 427.4	673.4
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_134	NA		435 555.8	7 297 734.2	436 157.0	7 297 426.0	675.6
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_135	NA		435 555.8	7 297 734.2	436 158.7	7 297 426.1	677.1
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_136	NA		435 555.8	7 297 734.2	436 160.1	7 297 425.4	678.6
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_137	NA		435 555.8	7 297 734.2	436 161.7	7 297 424.2	680.6
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_138	NA		435 555.8	7 297 734.2	436 162.9	7 297 422.7	682.4
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_139	NA		435 555.8	7 297 734.2	436 164.6	7 297 422.6	683.9
17/09/2021	19:17	ABP21308_TR16	Still	ABP21308_TR16_140	NA		435 555.8	7 297 734.2	436 166.2	7 297 421.0	686.1
17/09/2021	19:18	ABP21308_TR16	Still	ABP21308_TR16_141	NA		435 555.8	7 297 734.2	436 178.3	7 297 411.5	701.2
17/09/2021	19:18	ABP21308_TR16	Still	ABP21308_TR16_142	NA		435 555.8	7 297 734.2	436 180.3	7 297 410.2	703.5
17/09/2021	19:18	ABP21308_TR16	Still	ABP21308_TR16_143	NA		435 555.8	7 297 734.2	436 183.5	7 297 407.6	707.6
17/09/2021	19:18	ABP21308_TR16	Still	ABP21308_TR16_144	NA		435 555.8	7 297 734.2	436 190.4	7 297 403.5	715.6
17/09/2021	19:19	ABP21308_TR16	Still	ABP21308_TR16_145	NA		435 555.8	7 297 734.2	436 194.6	7 297 402.1	720.0
17/09/2021	19:21	ABP21308_TR16	Still	ABP21308_TR16_146	NA		435 555.8	7 297 734.2	436 234.2	7 297 392.7	759.5
17/09/2021	19:21	ABP21308_TR16	Still	ABP21308_TR16_147	NA		435 555.8	7 297 734.2	436 235.8	7 297 392.2	761.2
17/09/2021	19:21	ABP21308_TR16	Still	ABP21308_TR16_148	NA		435 555.8	7 297 734.2	436 238.2	7 297 391.1	763.8
17/09/2021	19:22	ABP21308_TR16	Still	ABP21308_TR16_149	NA		435 555.8	7 297 734.2	436 243.5	7 297 387.9	770.0
17/09/2021	19:22	ABP21308_TR16	Still	ABP21308_TR16_150	NA		435 555.8	7 297 734.2	436 244.0	7 297 387.2	770.7
17/09/2021	19:22	ABP21308_TR16	Still	ABP21308_TR16_151	NA		435 555.8	7 297 734.2	436 246.9	7 297 384.1	774.7
17/09/2021	19:23	ABP21308_TR16	Still	ABP21308_TR16_152	NA		435 555.8	7 297 734.2	436 262.3	7 297 373.3	793.3
17/09/2021	19:25	ABP21308_TR16	Still	ABP21308_TR16_153	NA		435 555.8	7 297 734.2	436 296.7	7 297 359.3	830.4
17/09/2021	19:25	ABP21308_TR16	Still	ABP21308_TR16_154	NA		435 555.8	7 297 734.2	436 297.8	7 297 357.8	832.0
17/09/2021	19:25	ABP21308_TR16	Still	ABP21308_TR16_155	NA		435 555.8	7 297 734.2	436 299.7	7 297 356.0	834.5
17/09/2021	19:25	ABP21308_TR16	Still	ABP21308_TR16_156	NA		435 555.8	7 297 734.2	436 301.6	7 297 353.9	837.2
17/09/2021	19:26	ABP21308_TR16	Still	ABP21308_TR16_157	NA		435 555.8	7 297 734.2	436 309.2	7 297 346.4	847.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	19:28	ABP21308_TR16	Still	ABP21308_TR16_158	NA		435 555.8	7 297 734.2	436 359.0	7 297 322.8	902.4
17/09/2021	19:29	ABP21308_TR16	Still	ABP21308_TR16_159	NA		435 555.8	7 297 734.2	436 381.8	7 297 312.6	927.4
17/09/2021	19:29	ABP21308_TR16	Still	ABP21308_TR16_160	NA		435 555.8	7 297 734.2	436 383.0	7 297 311.8	928.8
17/09/2021	19:31	ABP21308_TR16	Still	ABP21308_TR16_161	NA		435 555.8	7 297 734.2	436 419.5	7 297 291.4	970.6
17/09/2021	19:32	ABP21308_TR16	Still	ABP21308_TR16_162	NA		435 555.8	7 297 734.2	436 436.9	7 297 284.4	989.3
17/09/2021	19:33	ABP21308_TR16	Still	ABP21308_TR16_163	NA		435 555.8	7 297 734.2	436 443.4	7 297 279.7	997.2
17/09/2021	19:33	ABP21308_TR16	Still	ABP21308_TR16_164	NA		435 555.8	7 297 734.2	436 452.8	7 297 273.1	1008.6
17/09/2021	19:34	ABP21308_TR16	Still	ABP21308_TR16_165	NA		435 555.8	7 297 734.2	436 458.8	7 297 269.1	1015.7
17/09/2021	19:34	ABP21308_TR16	Still	ABP21308_TR16_166	NA		435 555.8	7 297 734.2	436 462.4	7 297 266.5	1020.1
17/09/2021	19:34	ABP21308_TR16	Still	ABP21308_TR16_167	NA		435 555.8	7 297 734.2	436 471.4	7 297 263.6	1029.5
17/09/2021	19:35	ABP21308_TR16	Still	ABP21308_TR16_168	NA		435 555.8	7 297 734.2	436 489.3	7 297 254.3	1049.6
17/09/2021	19:36	ABP21308_TR16	Still	ABP21308_TR16_169	NA		435 555.8	7 297 734.2	436 491.0	7 297 252.5	1052.0
17/09/2021	19:36	ABP21308_TR16	Still	ABP21308_TR16_170	NA		435 555.8	7 297 734.2	436 495.6	7 297 249.0	1057.7
17/09/2021	19:37	ABP21308_TR16	Still	ABP21308_TR16_171	NA		435 555.8	7 297 734.2	436 526.6	7 297 234.7	1091.8
17/09/2021	19:38	ABP21308_TR16	Still	ABP21308_TR16_172	NA		435 555.8	7 297 734.2	436 534.3	7 297 232.2	1099.8
17/09/2021	19:42	ABP21308_TR16	Still	ABP21308_TR16_173	NA		435 555.8	7 297 734.2	436 597.9	7 297 198.3	1171.8
17/09/2021	19:43	ABP21308_TR16	Still	ABP21308_TR16_174	NA		435 555.8	7 297 734.2	436 608.2	7 297 192.3	1183.7
17/09/2021	19:43	ABP21308_TR16	Still	ABP21308_TR16_175	NA		435 555.8	7 297 734.2	436 608.5	7 297 192.8	1183.8
17/09/2021	19:43	ABP21308_TR16	Still	ABP21308_TR16_176	NA		435 555.8	7 297 734.2	436 616.1	7 297 188.6	1192.4
17/09/2021	19:44	ABP21308_TR16	Still	ABP21308_TR16_177	NA		435 555.8	7 297 734.2	436 623.0	7 297 185.7	1199.9
17/09/2021	19:45	ABP21308_TR16	Still	ABP21308_TR16_178	NA		435 555.8	7 297 734.2	436 644.1	7 297 174.4	1223.8
17/09/2021	19:47	ABP21308_TR16	Still	ABP21308_TR16_179	NA		435 555.8	7 297 734.2	436 675.8	7 297 157.3	1259.8
17/09/2021	19:48	ABP21308_TR16	Still	ABP21308_TR16_180	NA		435 555.8	7 297 734.2	436 703.6	7 297 145.7	1289.9
17/09/2021	19:50	ABP21308_TR16	Still	ABP21308_TR16_181	NA		435 555.8	7 297 734.2	436 733.0	7 297 128.6	1323.8
17/09/2021	19:50	ABP21308_TR16	Still	ABP21308_TR16_182	NA		435 555.8	7 297 734.2	436 743.8	7 297 123.4	1335.8
17/09/2021	19:52	ABP21308_TR16	Still	ABP21308_TR16_183	NA		435 555.8	7 297 734.2	436 781.4	7 297 106.8	1376.9
17/09/2021	19:53	ABP21308_TR16	Still	ABP21308_TR16_184	NA		435 555.8	7 297 734.2	436 793.6	7 297 100.2	1390.7
17/09/2021	19:53	ABP21308_TR16	Still	ABP21308_TR16_185	NA		435 555.8	7 297 734.2	436 799.9	7 297 096.2	1398.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	19:54	ABP21308_TR16	Still	ABP21308_TR16_186	NA		435 555.8	7 297 734.2	436 805.6	7 297 090.6	1405.8
17/09/2021	19:55	ABP21308_TR16	Still	ABP21308_TR16_187	NA		435 555.8	7 297 734.2	436 814.9	7 297 085.5	1416.4
17/09/2021	19:55	ABP21308_TR16	Still	ABP21308_TR16_188	NA		435 555.8	7 297 734.2	436 816.9	7 297 084.9	1418.4
17/09/2021	19:55	ABP21308_TR16	Still	ABP21308_TR16_189	NA		435 555.8	7 297 734.2	436 820.4	7 297 083.7	1422.1
17/09/2021	19:55	ABP21308_TR16	Still	ABP21308_TR16_190	NA		435 555.8	7 297 734.2	436 825.6	7 297 080.2	1428.3
17/09/2021	19:57	ABP21308_TR16	Still	ABP21308_TR16_191	NA		435 555.8	7 297 734.2	436 853.3	7 297 067.8	1458.6
17/09/2021	19:57	ABP21308_TR16	Still	ABP21308_TR16_192	NA		435 555.8	7 297 734.2	436 868.3	7 297 061.2	1475.0
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_193	NA		435 555.8	7 297 734.2	436 908.0	7 297 035.9	1521.9
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_194	NA		435 555.8	7 297 734.2	436 908.9	7 297 033.8	1523.6
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_195	NA		435 555.8	7 297 734.2	436 908.3	7 297 029.8	1524.9
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_196	NA		435 555.8	7 297 734.2	436 908.8	7 297 029.4	1525.6
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_197	NA		435 555.8	7 297 734.2	436 908.9	7 297 028.4	1526.1
17/09/2021	20:00	ABP21308_TR16	Still	ABP21308_TR16_198	NA		435 555.8	7 297 734.2	436 910.3	7 297 026.0	1528.5
17/09/2021	20:01	ABP21308_TR16	Still	ABP21308_TR16_199	NA		435 555.8	7 297 734.2	436 910.7	7 297 020.8	1531.2
17/09/2021	20:01	ABP21308_TR16	Still	ABP21308_TR16_200	NA		435 555.8	7 297 734.2	436 910.4	7 297 019.0	1531.8
17/09/2021	20:01	ABP21308_TR16	Still	ABP21308_TR16_201	NA		435 555.8	7 297 734.2	436 907.9	7 297 015.9	1531.1
17/09/2021	20:01	ABP21308_TR16	Still	ABP21308_TR16_202	NA		435 555.8	7 297 734.2	436 906.5	7 297 016.5	1529.5
17/09/2021	20:02	ABP21308_TR16	Still	ABP21308_TR16_203	NA		435 555.8	7 297 734.2	436 895.4	7 297 018.0	1519.0
17/09/2021	20:03	ABP21308_TR16	Still	ABP21308_TR16_204	NA		435 555.8	7 297 734.2	436 891.9	7 297 005.2	1522.0
17/09/2021	20:03	ABP21308_TR16	Still	ABP21308_TR16_205	NA		435 555.8	7 297 734.2	436 890.6	7 297 003.8	1521.6
17/09/2021	20:03	ABP21308_TR16	Still	ABP21308_TR16_206	NA		435 555.8	7 297 734.2	436 889.3	7 297 002.7	1521.0
17/09/2021	20:04	ABP21308_TR16	Still	ABP21308_TR16_207	NA		435 555.8	7 297 734.2	436 890.6	7 297 000.9	1523.0
17/09/2021	20:04	ABP21308_TR16	Still	ABP21308_TR16_208	NA		435 555.8	7 297 734.2	436 902.8	7 297 002.4	1533.0
17/09/2021	20:06	ABP21308_TR16	Still	ABP21308_TR16_209	NA		435 555.8	7 297 734.2	436 905.4	7 297 030.5	1522.0
17/09/2021	20:06	ABP21308_TR16	Still	ABP21308_TR16_210	NA		435 555.8	7 297 734.2	436 908.8	7 297 032.8	1524.0
17/09/2021	20:07	ABP21308_TR16	Still	ABP21308_TR16_211	NA		435 555.8	7 297 734.2	436 917.1	7 297 037.0	1529.5
17/09/2021	20:07	ABP21308_TR16	Still	ABP21308_TR16_212	NA		435 555.8	7 297 734.2	436 931.8	7 297 040.4	1541.0
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_213	NA		435 555.8	7 297 734.2	436 937.5	7 297 044.6	1544.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_214	NA		435 555.8	7 297 734.2	436 939.7	7 297 046.0	1545.6
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_215	NA		435 555.8	7 297 734.2	436 939.9	7 297 045.8	1545.8
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_216	NA		435 555.8	7 297 734.2	436 940.0	7 297 046.9	1545.4
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_217	NA		435 555.8	7 297 734.2	436 939.5	7 297 047.0	1544.9
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_218	NA		435 555.8	7 297 734.2	436 939.3	7 297 047.2	1544.7
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_219	NA		435 555.8	7 297 734.2	436 939.5	7 297 047.5	1544.7
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_220	NA		435 555.8	7 297 734.2	436 939.4	7 297 047.4	1544.7
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_221	NA		435 555.8	7 297 734.2	436 939.7	7 297 047.5	1544.9
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_222	NA		435 555.8	7 297 734.2	436 940.3	7 297 048.6	1545.0
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_223	NA		435 555.8	7 297 734.2	436 940.4	7 297 049.0	1544.9
17/09/2021	20:08	ABP21308_TR16	Still	ABP21308_TR16_224	NA		435 555.8	7 297 734.2	436 940.9	7 297 049.6	1545.0
17/09/2021	20:09	ABP21308_TR16	Still	ABP21308_TR16_225	NA		435 555.8	7 297 734.2	436 941.1	7 297 051.7	1544.3
17/09/2021	20:09	ABP21308_TR16	Still	ABP21308_TR16_226	NA		435 555.8	7 297 734.2	436 948.7	7 297 051.9	1551.0
17/09/2021	20:09	ABP21308_TR16	Still	ABP21308_TR16_227	NA		435 555.8	7 297 734.2	436 949.9	7 297 050.9	1552.6
17/09/2021	20:10	ABP21308_TR16	Still	ABP21308_TR16_228	NA		435 555.8	7 297 734.2	436 953.4	7 297 046.6	1557.6
17/09/2021	20:10	ABP21308_TR16	Still	ABP21308_TR16_229	NA		435 555.8	7 297 734.2	436 954.5	7 297 045.3	1559.1
17/09/2021	20:10	ABP21308_TR16	Still	ABP21308_TR16_230	NA		435 555.8	7 297 734.2	436 958.2	7 297 046.2	1562.1
17/09/2021	20:10	ABP21308_TR16	Still	ABP21308_TR16_231	NA		435 555.8	7 297 734.2	436 959.9	7 297 050.6	1561.7
17/09/2021	20:10	ABP21308_TR16	Still	ABP21308_TR16_232	NA		435 555.8	7 297 734.2	436 959.2	7 297 050.7	1561.0
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_233	NA		435 555.8	7 297 734.2	436 959.2	7 297 052.0	1560.4
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_234	NA		435 555.8	7 297 734.2	436 958.8	7 297 052.3	1559.9
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_235	NA		435 555.8	7 297 734.2	436 958.4	7 297 054.3	1558.7
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_236	NA		435 555.8	7 297 734.2	436 956.2	7 297 056.6	1555.7
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_237	NA		435 555.8	7 297 734.2	436 956.0	7 297 056.4	1555.6
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_238	NA		435 555.8	7 297 734.2	436 956.7	7 297 056.6	1556.2
17/09/2021	20:11	ABP21308_TR16	Still	ABP21308_TR16_239	NA		435 555.8	7 297 734.2	436 955.0	7 297 058.0	1554.0
17/09/2021	20:13	ABP21308_TR16	Still	ABP21308_TR16_240	NA		435 555.8	7 297 734.2	436 970.8	7 297 066.7	1564.5
17/09/2021	20:13	ABP21308_TR16	Still	ABP21308_TR16_241	NA		435 555.8	7 297 734.2	436 970.0	7 297 066.9	1563.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	20:13	ABP21308_TR16	Still	ABP21308_TR16_242	NA		435 555.8	7 297 734.2	436 963.8	7 297 063.3	1559.7
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_243	NA		435 555.8	7 297 734.2	436 959.1	7 297 060.9	1556.5
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_244	NA		435 555.8	7 297 734.2	436 958.4	7 297 060.5	1556.0
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_245	NA		435 555.8	7 297 734.2	436 958.6	7 297 059.0	1556.8
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_246	NA		435 555.8	7 297 734.2	436 959.4	7 297 057.2	1558.3
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_247	NA		435 555.8	7 297 734.2	436 959.0	7 297 057.8	1557.7
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_248	NA		435 555.8	7 297 734.2	436 959.1	7 297 057.8	1557.8
17/09/2021	20:14	ABP21308_TR16	Still	ABP21308_TR16_249	NA		435 555.8	7 297 734.2	436 958.2	7 297 058.7	1556.6
17/09/2021	20:15	ABP21308_TR16	Still	ABP21308_TR16_250	NA		435 555.8	7 297 734.2	436 955.9	7 297 057.3	1555.1
17/09/2021	20:15	ABP21308_TR16	Still	ABP21308_TR16_251	NA		435 555.8	7 297 734.2	436 956.0	7 297 057.1	1555.3
17/09/2021	20:15	ABP21308_TR16	Still	ABP21308_TR16_252	NA		435 555.8	7 297 734.2	436 955.8	7 297 056.9	1555.2
17/09/2021	20:15	ABP21308_TR16	Still	ABP21308_TR16_253	NA		435 555.8	7 297 734.2	436 953.9	7 297 056.3	1553.8
17/09/2021	20:16	ABP21308_TR16	Still	ABP21308_TR16_254	NA		435 555.8	7 297 734.2	436 952.6	7 297 053.6	1553.8
17/09/2021	20:16	ABP21308_TR16	Still	ABP21308_TR16_255	NA		435 555.8	7 297 734.2	436 946.6	7 297 051.5	1549.3
17/09/2021	20:16	ABP21308_TR16	Still	ABP21308_TR16_256	NA		435 555.8	7 297 734.2	436 946.3	7 297 051.6	1549.0
17/09/2021	20:16	ABP21308_TR16	Still	ABP21308_TR16_257	NA		435 555.8	7 297 734.2	436 944.9	7 297 053.0	1547.1
17/09/2021	20:16	ABP21308_TR16	Still	ABP21308_TR16_258	NA		435 555.8	7 297 734.2	436 944.6	7 297 053.0	1546.9
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_259	NA		435 555.8	7 297 734.2	436 942.2	7 297 051.6	1545.3
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_260	NA		435 555.8	7 297 734.2	436 942.1	7 297 051.3	1545.4
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_261	NA		435 555.8	7 297 734.2	436 941.8	7 297 050.9	1545.3
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_262	NA		435 555.8	7 297 734.2	436 941.8	7 297 050.5	1545.5
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_263	NA		435 555.8	7 297 734.2	436 941.0	7 297 049.1	1545.4
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_264	NA		435 555.8	7 297 734.2	436 939.6	7 297 047.6	1544.8
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_265	NA		435 555.8	7 297 734.2	436 938.6	7 297 047.9	1543.7
17/09/2021	20:17	ABP21308_TR16	Still	ABP21308_TR16_266	NA		435 555.8	7 297 734.2	436 936.5	7 297 046.2	1542.6
17/09/2021	20:18	ABP21308_TR16	Still	ABP21308_TR16_267	NA		435 555.8	7 297 734.2	436 935.3	7 297 043.7	1542.7
17/09/2021	20:18	ABP21308_TR16	Still	ABP21308_TR16_268	NA		435 555.8	7 297 734.2	436 928.6	7 297 042.3	1537.3
17/09/2021	20:19	ABP21308_TR16	Still	ABP21308_TR16_269	NA		435 555.8	7 297 734.2	436 923.9	7 297 040.6	1533.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	20:19	ABP21308_TR16	Still	ABP21308_TR16_270	NA		435 555.8	7 297 734.2	436 920.0	7 297 037.5	1531.8
17/09/2021	20:20	ABP21308_TR16	Still	ABP21308_TR16_271	NA		435 555.8	7 297 734.2	436 928.9	7 297 027.3	1544.4
17/09/2021	20:20	ABP21308_TR16	Still	ABP21308_TR16_272	NA		435 555.8	7 297 734.2	436 931.2	7 297 026.2	1546.9
17/09/2021	20:20	ABP21308_TR16	Still	ABP21308_TR16_273	NA		435 555.8	7 297 734.2	436 934.0	7 297 024.5	1550.2
17/09/2021	20:21	ABP21308_TR16	Still	ABP21308_TR16_274	NA		435 555.8	7 297 734.2	436 936.6	7 297 023.7	1552.9
17/09/2021	20:21	ABP21308_TR16	Still	ABP21308_TR16_275	NA		435 555.8	7 297 734.2	436 938.2	7 297 023.2	1554.5
17/09/2021	20:21	ABP21308_TR16	Still	ABP21308_TR16_276	NA		435 555.8	7 297 734.2	436 941.3	7 297 021.4	1558.1
17/09/2021	20:21	ABP21308_TR16	Still	ABP21308_TR16_277	NA		435 555.8	7 297 734.2	436 944.1	7 297 019.6	1561.4
17/09/2021	20:22	ABP21308_TR16	Still	ABP21308_TR16_278	NA		435 555.8	7 297 734.2	436 954.7	7 297 015.1	1572.9
17/09/2021	20:23	ABP21308_TR16	Still	ABP21308_TR16_279	NA		435 555.8	7 297 734.2	436 960.5	7 297 011.8	1579.6
17/09/2021	20:23	ABP21308_TR16	Still	ABP21308_TR16_280	NA		435 555.8	7 297 734.2	436 967.5	7 297 007.4	1587.8
17/09/2021	20:24	ABP21308_TR16	Still	ABP21308_TR16_281	NA		435 555.8	7 297 734.2	436 969.5	7 297 005.8	1590.3
17/09/2021	20:24	ABP21308_TR16	Still	ABP21308_TR16_282	NA		435 555.8	7 297 734.2	436 969.8	7 297 006.1	1590.4
17/09/2021	20:24	ABP21308_TR16	Still	ABP21308_TR16_283	NA		435 555.8	7 297 734.2	436 973.5	7 297 003.5	1594.9
17/09/2021	20:24	ABP21308_TR16	Still	ABP21308_TR16_284	NA		435 555.8	7 297 734.2	436 975.9	7 297 001.1	1598.2
17/09/2021	20:25	ABP21308_TR16	Still	ABP21308_TR16_285	NA		435 555.8	7 297 734.2	436 981.9	7 296 998.7	1604.6
17/09/2021	20:26	ABP21308_TR16	Still	ABP21308_TR16_286	NA		435 555.8	7 297 734.2	437 003.9	7 296 987.9	1629.1
17/09/2021	20:26	ABP21308_TR16	Still	ABP21308_TR16_287	NA		435 555.8	7 297 734.2	437 007.9	7 296 986.8	1633.2
17/09/2021	20:26	ABP21308_TR16	Still	ABP21308_TR16_288	NA		435 555.8	7 297 734.2	437 016.6	7 296 981.5	1643.3
17/09/2021	20:26	ABP21308_TR16	Still	ABP21308_TR16_289	NA		435 555.8	7 297 734.2	437 019.8	7 296 979.3	1647.2
17/09/2021	20:27	ABP21308_TR16	Still	ABP21308_TR16_290	NA		435 555.8	7 297 734.2	437 034.9	7 296 971.4	1664.2
17/09/2021	20:27	ABP21308_TR16	Still	ABP21308_TR16_291	NA		435 555.8	7 297 734.2	437 041.8	7 296 967.8	1672.0
17/09/2021	20:28	ABP21308_TR16	Still	ABP21308_TR16_292	NA		435 555.8	7 297 734.2	437 060.0	7 296 958.7	1692.3
17/09/2021	20:28	ABP21308_TR16	Still	ABP21308_TR16_293	NA		435 555.8	7 297 734.2	437 062.6	7 296 957.3	1695.3
17/09/2021	20:29	ABP21308_TR16	Still	ABP21308_TR16_294	NA		435 555.8	7 297 734.2	437 070.2	7 296 952.8	1704.1
17/09/2021	20:29	ABP21308_TR16	Still	ABP21308_TR16_295	NA		435 555.8	7 297 734.2	437 077.3	7 296 948.6	1712.3
17/09/2021	20:30	ABP21308_TR16	Still	ABP21308_TR16_296	NA		435 555.8	7 297 734.2	437 085.5	7 296 945.9	1720.9
17/09/2021	20:31	ABP21308_TR16	Still	ABP21308_TR16_297	NA		435 555.8	7 297 734.2	437 093.4	7 296 941.1	1730.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	20:31	ABP21308_TR16	Still	ABP21308_TR16_298	NA		435 555.8	7 297 734.2	437 096.6	7 296 940.3	1733.3
17/09/2021	20:33	ABP21308_TR16	Still	ABP21308_TR16_299	NA		435 555.8	7 297 734.2	437 145.1	7 296 916.3	1787.4
17/09/2021	20:36	ABP21308_TR16	Still	ABP21308_TR16_300	NA		435 555.8	7 297 734.2	437 179.8	7 296 896.7	1827.2
17/09/2021	20:36	ABP21308_TR16	Still	ABP21308_TR16_301	NA		435 555.8	7 297 734.2	437 181.7	7 296 895.3	1829.6
17/09/2021	20:36	ABP21308_TR16	Still	ABP21308_TR16_302	NA		435 555.8	7 297 734.2	437 191.7	7 296 888.4	1841.6
17/09/2021	20:37	ABP21308_TR16	Still	ABP21308_TR16_303	NA		435 555.8	7 297 734.2	437 196.8	7 296 884.7	1847.8
17/09/2021	20:37	ABP21308_TR16	Still	ABP21308_TR16_304	NA		435 555.8	7 297 734.2	437 204.4	7 296 880.8	1856.4
17/09/2021	20:37	ABP21308_TR16	Still	ABP21308_TR16_305	NA		435 555.8	7 297 734.2	437 208.8	7 296 878.4	1861.4
17/09/2021	20:38	ABP21308_TR16	Still	ABP21308_TR16_306	NA		435 555.8	7 297 734.2	437 215.5	7 296 875.6	1868.6
17/09/2021	20:38	ABP21308_TR16	Still	ABP21308_TR16_307	NA		435 555.8	7 297 734.2	437 217.0	7 296 875.2	1870.2
17/09/2021	20:38	ABP21308_TR16	Still	ABP21308_TR16_308	NA		435 555.8	7 297 734.2	437 223.6	7 296 872.7	1877.2
17/09/2021	20:38	ABP21308_TR16	Still	ABP21308_TR16_309	NA		435 555.8	7 297 734.2	437 230.9	7 296 869.5	1885.1
17/09/2021	20:39	ABP21308_TR16	Still	ABP21308_TR16_310	NA		435 555.8	7 297 734.2	437 241.2	7 296 864.0	1896.8
17/09/2021	20:40	ABP21308_TR16	Still	ABP21308_TR16_311	NA		435 555.8	7 297 734.2	437 261.7	7 296 854.3	1919.5
17/09/2021	20:41	ABP21308_TR16	Still	ABP21308_TR16_312	NA		435 555.8	7 297 734.2	437 274.3	7 296 849.0	1933.1
17/09/2021	20:41	ABP21308_TR16	Still	ABP21308_TR16_313	NA		435 555.8	7 297 734.2	437 286.9	7 296 843.1	1947.0
17/09/2021	20:42	ABP21308_TR16	Still	ABP21308_TR16_314	NA		435 555.8	7 297 734.2	437 294.7	7 296 841.9	1954.5
17/09/2021	20:42	ABP21308_TR16	Still	ABP21308_TR16_315	NA		435 555.8	7 297 734.2	437 303.5	7 296 839.1	1963.6
17/09/2021	20:42	ABP21308_TR16	Still	ABP21308_TR16_316	NA		435 555.8	7 297 734.2	437 308.5	7 296 834.2	1970.3
17/09/2021	20:43	ABP21308_TR16	Still	ABP21308_TR16_317	NA		435 555.8	7 297 734.2	437 321.9	7 296 823.4	1987.1
17/09/2021	20:43	ABP21308_TR16	Still	ABP21308_TR16_318	NA		435 555.8	7 297 734.2	437 325.2	7 296 822.0	1990.7
17/09/2021	20:44	ABP21308_TR16	Still	ABP21308_TR16_319	NA		435 555.8	7 297 734.2	437 334.4	7 296 818.7	2000.4
17/09/2021	20:45	ABP21308_TR16	Still	ABP21308_TR16_320	NA		435 555.8	7 297 734.2	437 326.0	7 296 826.0	1989.6
17/09/2021	20:44	ABP21308_TR16	Video	EOL	28	330.8	435 555.8	7 297 734.2	437 336.1	7 296 817.9	2002.3
17/09/2021	15:21	ABP21308_TR17	Video	SOL	25	301.2	435 969.0	7 295 492.0	436 012.0	7 295 512.5	47.6
17/09/2021	15:21	ABP21308_TR17	Still	ABP21308_TR17_001	NA		435 969.0	7 295 492.0	436 011.0	7 295 512.0	46.5
17/09/2021	15:23	ABP21308_TR17	Still	ABP21308_TR17_002	NA		435 969.0	7 295 492.0	435 989.6	7 295 507.3	25.7
17/09/2021	15:23	ABP21308_TR17	Still	ABP21308_TR17_003	NA		435 969.0	7 295 492.0	435 975.7	7 295 506.8	16.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	15:26	ABP21308_TR17	Still	ABP21308_TR17_004	NA		435 969.0	7 295 492.0	435 949.8	7 295 511.8	27.6
17/09/2021	15:26	ABP21308_TR17	Still	ABP21308_TR17_005	NA		435 969.0	7 295 492.0	435 951.1	7 295 512.9	27.5
17/09/2021	15:26	ABP21308_TR17	Still	ABP21308_TR17_006	NA		435 969.0	7 295 492.0	435 955.7	7 295 518.5	29.7
17/09/2021	15:27	ABP21308_TR17	Still	ABP21308_TR17_007	NA		435 969.0	7 295 492.0	435 953.5	7 295 525.8	37.2
17/09/2021	15:30	ABP21308_TR17	Still	ABP21308_TR17_008	NA		435 969.0	7 295 492.0	435 938.1	7 295 559.2	74.0
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_009	NA		435 969.0	7 295 492.0	435 936.5	7 295 563.2	78.3
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_010	NA		435 969.0	7 295 492.0	435 935.9	7 295 564.1	79.3
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_011	NA		435 969.0	7 295 492.0	435 935.5	7 295 565.1	80.4
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_012	NA		435 969.0	7 295 492.0	435 934.9	7 295 567.5	82.8
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_013	NA		435 969.0	7 295 492.0	435 933.9	7 295 569.1	84.7
17/09/2021	15:31	ABP21308_TR17	Still	ABP21308_TR17_014	NA		435 969.0	7 295 492.0	435 931.2	7 295 573.5	89.8
17/09/2021	15:32	ABP21308_TR17	Still	ABP21308_TR17_015	NA		435 969.0	7 295 492.0	435 931.1	7 295 575.3	91.5
17/09/2021	15:32	ABP21308_TR17	Still	ABP21308_TR17_016	NA		435 969.0	7 295 492.0	435 926.5	7 295 583.7	101.1
17/09/2021	15:32	ABP21308_TR17	Still	ABP21308_TR17_017	NA		435 969.0	7 295 492.0	435 925.7	7 295 586.3	103.8
17/09/2021	15:32	ABP21308_TR17	Still	ABP21308_TR17_018	NA		435 969.0	7 295 492.0	435 925.6	7 295 586.8	104.3
17/09/2021	15:33	ABP21308_TR17	Still	ABP21308_TR17_019	NA		435 969.0	7 295 492.0	435 924.6	7 295 588.8	106.5
17/09/2021	15:33	ABP21308_TR17	Still	ABP21308_TR17_020	NA		435 969.0	7 295 492.0	435 924.0	7 295 589.8	107.7
17/09/2021	15:33	ABP21308_TR17	Still	ABP21308_TR17_021	NA		435 969.0	7 295 492.0	435 922.5	7 295 592.8	111.0
17/09/2021	15:33	ABP21308_TR17	Still	ABP21308_TR17_022	NA		435 969.0	7 295 492.0	435 921.3	7 295 597.2	115.5
17/09/2021	15:33	ABP21308_TR17	Still	ABP21308_TR17_023	NA		435 969.0	7 295 492.0	435 920.1	7 295 599.0	117.6
17/09/2021	15:35	ABP21308_TR17	Still	ABP21308_TR17_024	NA		435 969.0	7 295 492.0	435 909.9	7 295 623.6	144.3
17/09/2021	15:36	ABP21308_TR17	Still	ABP21308_TR17_025	NA		435 969.0	7 295 492.0	435 906.2	7 295 626.7	148.6
17/09/2021	15:36	ABP21308_TR17	Still	ABP21308_TR17_026	NA		435 969.0	7 295 492.0	435 905.4	7 295 626.8	149.1
17/09/2021	15:36	ABP21308_TR17	Still	ABP21308_TR17_027	NA		435 969.0	7 295 492.0	435 901.7	7 295 630.5	154.0
17/09/2021	15:37	ABP21308_TR17	Still	ABP21308_TR17_028	NA		435 969.0	7 295 492.0	435 894.8	7 295 642.4	167.7
17/09/2021	15:38	ABP21308_TR17	Still	ABP21308_TR17_029	NA		435 969.0	7 295 492.0	435 888.3	7 295 659.6	186.0
17/09/2021	15:38	ABP21308_TR17	Still	ABP21308_TR17_030	NA		435 969.0	7 295 492.0	435 888.0	7 295 660.9	187.3
17/09/2021	15:39	ABP21308_TR17	Still	ABP21308_TR17_031	NA		435 969.0	7 295 492.0	435 887.0	7 295 666.9	193.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	15:39	ABP21308_TR17	Still	ABP21308_TR17_032	NA		435 969.0	7 295 492.0	435 888.2	7 295 678.3	203.1
17/09/2021	15:40	ABP21308_TR17	Still	ABP21308_TR17_033	NA		435 969.0	7 295 492.0	435 889.1	7 295 680.3	204.6
17/09/2021	15:40	ABP21308_TR17	Still	ABP21308_TR17_034	NA		435 969.0	7 295 492.0	435 886.6	7 295 691.9	216.2
17/09/2021	15:41	ABP21308_TR17	Still	ABP21308_TR17_035	NA		435 969.0	7 295 492.0	435 885.1	7 295 698.9	223.3
17/09/2021	15:41	ABP21308_TR17	Still	ABP21308_TR17_036	NA		435 969.0	7 295 492.0	435 884.0	7 295 701.5	226.1
17/09/2021	15:41	ABP21308_TR17	Still	ABP21308_TR17_037	NA		435 969.0	7 295 492.0	435 881.6	7 295 709.1	234.0
17/09/2021	15:42	ABP21308_TR17	Still	ABP21308_TR17_038	NA		435 969.0	7 295 492.0	435 879.5	7 295 714.3	239.6
17/09/2021	15:43	ABP21308_TR17	Still	ABP21308_TR17_039	NA		435 969.0	7 295 492.0	435 871.9	7 295 729.3	256.4
17/09/2021	15:43	ABP21308_TR17	Still	ABP21308_TR17_040	NA		435 969.0	7 295 492.0	435 871.1	7 295 730.8	258.1
17/09/2021	15:43	ABP21308_TR17	Still	ABP21308_TR17_041	NA		435 969.0	7 295 492.0	435 871.4	7 295 731.0	258.2
17/09/2021	15:44	ABP21308_TR17	Still	ABP21308_TR17_042	NA		435 969.0	7 295 492.0	435 871.1	7 295 731.0	258.3
17/09/2021	15:46	ABP21308_TR17	Still	ABP21308_TR17_043	NA		435 969.0	7 295 492.0	435 849.5	7 295 772.2	304.6
17/09/2021	15:49	ABP21308_TR17	Still	ABP21308_TR17_044	NA		435 969.0	7 295 492.0	435 818.1	7 295 806.7	349.0
17/09/2021	15:50	ABP21308_TR17	Still	ABP21308_TR17_045	NA		435 969.0	7 295 492.0	435 812.9	7 295 817.1	360.6
17/09/2021	15:50	ABP21308_TR17	Still	ABP21308_TR17_046	NA		435 969.0	7 295 492.0	435 810.1	7 295 823.2	367.3
17/09/2021	15:51	ABP21308_TR17	Still	ABP21308_TR17_047	NA		435 969.0	7 295 492.0	435 798.4	7 295 845.7	392.7
17/09/2021	15:52	ABP21308_TR17	Still	ABP21308_TR17_048	NA		435 969.0	7 295 492.0	435 797.0	7 295 849.4	396.6
17/09/2021	15:52	ABP21308_TR17	Still	ABP21308_TR17_049	NA		435 969.0	7 295 492.0	435 791.1	7 295 861.1	409.7
17/09/2021	15:53	ABP21308_TR17	Still	ABP21308_TR17_050	NA		435 969.0	7 295 492.0	435 784.5	7 295 875.4	425.5
17/09/2021	15:55	ABP21308_TR17	Still	ABP21308_TR17_051	NA		435 969.0	7 295 492.0	435 772.9	7 295 897.7	450.6
17/09/2021	15:55	ABP21308_TR17	Still	ABP21308_TR17_052	NA		435 969.0	7 295 492.0	435 772.1	7 295 898.9	452.0
17/09/2021	15:56	ABP21308_TR17	Still	ABP21308_TR17_053	NA		435 969.0	7 295 492.0	435 761.6	7 295 919.0	474.7
17/09/2021	15:56	ABP21308_TR17	Still	ABP21308_TR17_054	NA		435 969.0	7 295 492.0	435 757.6	7 295 926.3	483.0
17/09/2021	15:57	ABP21308_TR17	Still	ABP21308_TR17_055	NA		435 969.0	7 295 492.0	435 752.6	7 295 943.9	501.0
17/09/2021	15:58	ABP21308_TR17	Still	ABP21308_TR17_056	NA		435 969.0	7 295 492.0	435 745.8	7 295 957.3	516.1
17/09/2021	16:00	ABP21308_TR17	Still	ABP21308_TR17_057	NA		435 969.0	7 295 492.0	435 729.6	7 295 989.4	552.0
17/09/2021	16:03	ABP21308_TR17	Still	ABP21308_TR17_058	NA		435 969.0	7 295 492.0	435 707.5	7 296 034.6	602.3
17/09/2021	16:03	ABP21308_TR17	Still	ABP21308_TR17_059	NA		435 969.0	7 295 492.0	435 702.1	7 296 046.1	615.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	16:05	ABP21308_TR17	Still	ABP21308_TR17_060	NA		435 969.0	7 295 492.0	435 692.6	7 296 067.6	638.5
17/09/2021	16:05	ABP21308_TR17	Still	ABP21308_TR17_061	NA		435 969.0	7 295 492.0	435 687.2	7 296 079.0	651.1
17/09/2021	16:05	ABP21308_TR17	Still	ABP21308_TR17_062	NA		435 969.0	7 295 492.0	435 686.9	7 296 080.1	652.3
17/09/2021	16:07	ABP21308_TR17	Still	ABP21308_TR17_063	NA		435 969.0	7 295 492.0	435 671.8	7 296 112.7	688.2
17/09/2021	16:11	ABP21308_TR17	Still	ABP21308_TR17_064	NA		435 969.0	7 295 492.0	435 644.8	7 296 166.6	748.5
17/09/2021	16:12	ABP21308_TR17	Still	ABP21308_TR17_065	NA		435 969.0	7 295 492.0	435 635.3	7 296 187.4	771.3
17/09/2021	16:14	ABP21308_TR17	Still	ABP21308_TR17_066	NA		435 969.0	7 295 492.0	435 620.2	7 296 219.9	807.2
17/09/2021	16:17	ABP21308_TR17	Still	ABP21308_TR17_067	NA		435 969.0	7 295 492.0	435 603.1	7 296 256.5	847.6
17/09/2021	16:18	ABP21308_TR17	Still	ABP21308_TR17_068	NA		435 969.0	7 295 492.0	435 592.0	7 296 282.3	875.6
17/09/2021	16:20	ABP21308_TR17	Still	ABP21308_TR17_069	NA		435 969.0	7 295 492.0	435 574.5	7 296 312.0	910.0
17/09/2021	16:21	ABP21308_TR17	Still	ABP21308_TR17_070	NA		435 969.0	7 295 492.0	435 573.2	7 296 315.2	913.4
17/09/2021	16:23	ABP21308_TR17	Still	ABP21308_TR17_071	NA		435 969.0	7 295 492.0	435 559.5	7 296 344.6	945.8
17/09/2021	16:23	ABP21308_TR17	Still	ABP21308_TR17_072	NA		435 969.0	7 295 492.0	435 558.0	7 296 349.6	951.0
17/09/2021	16:26	ABP21308_TR17	Still	ABP21308_TR17_073	NA		435 969.0	7 295 492.0	435 542.5	7 296 383.7	988.4
17/09/2021	16:26	ABP21308_TR17	Still	ABP21308_TR17_074	NA		435 969.0	7 295 492.0	435 538.4	7 296 394.3	999.8
17/09/2021	16:26	ABP21308_TR17	Still	ABP21308_TR17_075	NA		435 969.0	7 295 492.0	435 537.8	7 296 396.8	1002.3
17/09/2021	16:28	ABP21308_TR17	Still	ABP21308_TR17_076	NA		435 969.0	7 295 492.0	435 523.4	7 296 424.4	1033.4
17/09/2021	16:28	ABP21308_TR17	Still	ABP21308_TR17_077	NA		435 969.0	7 295 492.0	435 522.1	7 296 426.5	1035.9
17/09/2021	16:29	ABP21308_TR17	Still	ABP21308_TR17_078	NA		435 969.0	7 295 492.0	435 521.0	7 296 429.3	1038.9
17/09/2021	16:29	ABP21308_TR17	Still	ABP21308_TR17_079	NA		435 969.0	7 295 492.0	435 520.0	7 296 431.2	1041.0
17/09/2021	16:29	ABP21308_TR17	Still	ABP21308_TR17_080	NA		435 969.0	7 295 492.0	435 513.8	7 296 440.9	1052.4
17/09/2021	16:30	ABP21308_TR17	Still	ABP21308_TR17_081	NA		435 969.0	7 295 492.0	435 509.4	7 296 450.6	1063.1
17/09/2021	16:35	ABP21308_TR17	Still	ABP21308_TR17_082	NA		435 969.0	7 295 492.0	435 472.0	7 296 528.0	1149.0
17/09/2021	16:35	ABP21308_TR17	Still	ABP21308_TR17_083	NA		435 969.0	7 295 492.0	435 470.3	7 296 531.5	1152.9
17/09/2021	16:38	ABP21308_TR17	Still	ABP21308_TR17_084	NA		435 969.0	7 295 492.0	435 442.6	7 296 585.4	1213.5
17/09/2021	16:40	ABP21308_TR17	Still	ABP21308_TR17_085	NA		435 969.0	7 295 492.0	435 421.8	7 296 631.1	1263.7
17/09/2021	16:43	ABP21308_TR17	Still	ABP21308_TR17_086	NA		435 969.0	7 295 492.0	435 396.9	7 296 676.7	1315.6
17/09/2021	16:43	ABP21308_TR17	Still	ABP21308_TR17_087	NA		435 969.0	7 295 492.0	435 394.7	7 296 680.9	1320.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	16:44	ABP21308_TR17	Still	ABP21308_TR17_088	NA		435 969.0	7 295 492.0	435 391.3	7 296 684.5	1325.1
17/09/2021	16:44	ABP21308_TR17	Still	ABP21308_TR17_089	NA		435 969.0	7 295 492.0	435 390.8	7 296 685.1	1325.8
17/09/2021	16:44	ABP21308_TR17	Still	ABP21308_TR17_090	NA		435 969.0	7 295 492.0	435 392.9	7 296 694.9	1333.7
17/09/2021	16:44	ABP21308_TR17	Still	ABP21308_TR17_091	NA		435 969.0	7 295 492.0	435 396.2	7 296 693.4	1331.0
17/09/2021	16:44	ABP21308_TR17	Still	ABP21308_TR17_092	NA		435 969.0	7 295 492.0	435 398.3	7 296 693.0	1329.7
17/09/2021	16:46	ABP21308_TR17	Still	ABP21308_TR17_093	NA		435 969.0	7 295 492.0	435 411.2	7 296 710.5	1340.1
17/09/2021	16:46	ABP21308_TR17	Still	ABP21308_TR17_094	NA		435 969.0	7 295 492.0	435 411.9	7 296 714.3	1343.3
17/09/2021	16:46	ABP21308_TR17	Still	ABP21308_TR17_095	NA		435 969.0	7 295 492.0	435 412.2	7 296 714.9	1343.7
17/09/2021	16:46	ABP21308_TR17	Still	ABP21308_TR17_096	NA		435 969.0	7 295 492.0	435 412.4	7 296 715.7	1344.3
17/09/2021	16:48	ABP21308_TR17	Still	ABP21308_TR17_097	NA		435 969.0	7 295 492.0	435 410.5	7 296 723.7	1352.4
17/09/2021	16:49	ABP21308_TR17	Still	ABP21308_TR17_098	NA		435 969.0	7 295 492.0	435 385.6	7 296 722.7	1362.0
17/09/2021	16:49	ABP21308_TR17	Still	ABP21308_TR17_099	NA		435 969.0	7 295 492.0	435 381.8	7 296 723.0	1363.9
17/09/2021	16:49	ABP21308_TR17	Still	ABP21308_TR17_100	NA		435 969.0	7 295 492.0	435 376.6	7 296 727.9	1370.5
17/09/2021	16:52	ABP21308_TR17	Still	ABP21308_TR17_101	NA		435 969.0	7 295 492.0	435 354.4	7 296 772.4	1420.3
17/09/2021	16:54	ABP21308_TR17	Still	ABP21308_TR17_102	NA		435 969.0	7 295 492.0	435 339.5	7 296 802.5	1453.9
17/09/2021	16:56	ABP21308_TR17	Still	ABP21308_TR17_103	NA		435 969.0	7 295 492.0	435 323.0	7 296 836.6	1491.7
17/09/2021	16:58	ABP21308_TR17	Still	ABP21308_TR17_104	NA		435 969.0	7 295 492.0	435 303.7	7 296 875.1	1534.8
17/09/2021	17:02	ABP21308_TR17	Still	ABP21308_TR17_105	NA		435 969.0	7 295 492.0	435 271.7	7 296 943.3	1610.1
17/09/2021	17:04	ABP21308_TR17	Still	ABP21308_TR17_106	NA		435 969.0	7 295 492.0	435 254.9	7 296 974.3	1645.3
17/09/2021	17:05	ABP21308_TR17	Still	ABP21308_TR17_107	NA		435 969.0	7 295 492.0	435 263.1	7 296 996.9	1662.2
17/09/2021	17:05	ABP21308_TR17	Still	ABP21308_TR17_108	NA		435 969.0	7 295 492.0	435 268.2	7 297 005.2	1667.6
17/09/2021	17:06	ABP21308_TR17	Still	ABP21308_TR17_109	NA		435 969.0	7 295 492.0	435 269.3	7 297 006.9	1668.7
17/09/2021	17:06	ABP21308_TR17	Still	ABP21308_TR17_110	NA		435 969.0	7 295 492.0	435 271.4	7 297 009.8	1670.4
17/09/2021	17:07	ABP21308_TR17	Still	ABP21308_TR17_111	NA		435 969.0	7 295 492.0	435 260.4	7 296 991.5	1658.5
17/09/2021	17:07	ABP21308_TR17	Still	ABP21308_TR17_112	NA		435 969.0	7 295 492.0	435 259.1	7 296 989.6	1657.3
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_113	NA		435 969.0	7 295 492.0	435 251.2	7 296 979.4	1651.5
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_114	NA		435 969.0	7 295 492.0	435 249.7	7 296 978.5	1651.4
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_115	NA		435 969.0	7 295 492.0	435 245.3	7 296 974.6	1649.8

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_116	NA		435 969.0	7 295 492.0	435 243.8	7 296 973.6	1649.6
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_117	NA		435 969.0	7 295 492.0	435 242.6	7 296 966.1	1643.4
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_118	NA		435 969.0	7 295 492.0	435 243.3	7 296 964.9	1642.0
17/09/2021	17:08	ABP21308_TR17	Still	ABP21308_TR17_119	NA		435 969.0	7 295 492.0	435 243.2	7 296 963.3	1640.6
17/09/2021	17:09	ABP21308_TR17	Still	ABP21308_TR17_120	NA		435 969.0	7 295 492.0	435 237.7	7 296 963.9	1643.6
17/09/2021	17:09	ABP21308_TR17	Still	ABP21308_TR17_121	NA		435 969.0	7 295 492.0	435 234.2	7 296 963.0	1644.3
17/09/2021	17:10	ABP21308_TR17	Still	ABP21308_TR17_122	NA		435 969.0	7 295 492.0	435 227.0	7 296 958.6	1643.6
17/09/2021	17:10	ABP21308_TR17	Still	ABP21308_TR17_123	NA		435 969.0	7 295 492.0	435 228.7	7 296 957.7	1642.0
17/09/2021	17:11	ABP21308_TR17	Still	ABP21308_TR17_124	NA		435 969.0	7 295 492.0	435 238.8	7 296 958.3	1638.1
17/09/2021	17:12	ABP21308_TR17	Still	ABP21308_TR17_125	NA		435 969.0	7 295 492.0	435 236.3	7 296 954.8	1636.0
17/09/2021	17:12	ABP21308_TR17	Still	ABP21308_TR17_126	NA		435 969.0	7 295 492.0	435 234.4	7 296 954.3	1636.4
17/09/2021	17:12	ABP21308_TR17	Still	ABP21308_TR17_127	NA		435 969.0	7 295 492.0	435 239.1	7 296 969.0	1647.5
17/09/2021	17:16	ABP21308_TR17	Still	ABP21308_TR17_128	NA		435 969.0	7 295 492.0	435 234.0	7 297 023.3	1698.6
17/09/2021	17:18	ABP21308_TR17	Still	ABP21308_TR17_129	NA		435 969.0	7 295 492.0	435 214.7	7 297 063.7	1743.3
17/09/2021	17:19	ABP21308_TR17	Still	ABP21308_TR17_130	NA		435 969.0	7 295 492.0	435 211.0	7 297 085.5	1764.6
17/09/2021	17:19	ABP21308_TR17	Still	ABP21308_TR17_131	NA		435 969.0	7 295 492.0	435 210.3	7 297 086.4	1765.7
17/09/2021	17:32	ABP21308_TR17	Still	ABP21308_TR17_132	NA		435 969.0	7 295 492.0	435 149.3	7 297 188.2	1883.9
17/09/2021	17:33	ABP21308_TR17	Still	ABP21308_TR17_133	NA		435 969.0	7 295 492.0	435 122.7	7 297 191.1	1898.2
17/09/2021	17:33	ABP21308_TR17	Still	ABP21308_TR17_134	NA		435 969.0	7 295 492.0	435 122.0	7 297 191.2	1898.6
17/09/2021	17:34	ABP21308_TR17	Still	ABP21308_TR17_135	NA		435 969.0	7 295 492.0	435 107.3	7 297 189.9	1904.0
17/09/2021	17:34	ABP21308_TR17	Still	ABP21308_TR17_136	NA		435 969.0	7 295 492.0	435 105.9	7 297 190.2	1904.9
17/09/2021	17:35	ABP21308_TR17	Still	ABP21308_TR17_137	NA		435 969.0	7 295 492.0	435 103.7	7 297 202.4	1916.8
17/09/2021	17:35	ABP21308_TR17	Still	ABP21308_TR17_138	NA		435 969.0	7 295 492.0	435 105.6	7 297 205.1	1918.4
17/09/2021	17:35	ABP21308_TR17	Still	ABP21308_TR17_139	NA		435 969.0	7 295 492.0	435 107.0	7 297 206.7	1919.2
17/09/2021	17:35	ABP21308_TR17	Still	ABP21308_TR17_140	NA		435 969.0	7 295 492.0	435 109.5	7 297 210.1	1921.1
17/09/2021	17:36	ABP21308_TR17	Still	ABP21308_TR17_141	NA		435 969.0	7 295 492.0	435 118.4	7 297 220.1	1926.1
17/09/2021	17:37	ABP21308_TR17	Still	ABP21308_TR17_142	NA		435 969.0	7 295 492.0	435 142.4	7 297 251.7	1944.2
17/09/2021	17:38	ABP21308_TR17	Still	ABP21308_TR17_143	NA		435 969.0	7 295 492.0	435 142.5	7 297 254.5	1946.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	17:38	ABP21308_TR17	Still	ABP21308_TR17_144	NA		435 969.0	7 295 492.0	435 136.1	7 297 260.3	1954.6
17/09/2021	17:38	ABP21308_TR17	Still	ABP21308_TR17_145	NA		435 969.0	7 295 492.0	435 134.7	7 297 260.4	1955.3
17/09/2021	17:38	ABP21308_TR17	Still	ABP21308_TR17_146	NA		435 969.0	7 295 492.0	435 134.1	7 297 260.3	1955.5
17/09/2021	17:38	ABP21308_TR17	Still	ABP21308_TR17_147	NA		435 969.0	7 295 492.0	435 134.1	7 297 260.4	1955.6
17/09/2021	17:40	ABP21308_TR17	Still	ABP21308_TR17_148	NA		435 969.0	7 295 492.0	435 111.8	7 297 272.1	1975.7
17/09/2021	17:40	ABP21308_TR17	Still	ABP21308_TR17_149	NA		435 969.0	7 295 492.0	435 110.3	7 297 273.3	1977.5
17/09/2021	17:42	ABP21308_TR17	Still	ABP21308_TR17_150	NA		435 969.0	7 295 492.0	435 101.3	7 297 296.5	2002.3
17/09/2021	17:42	ABP21308_TR17	Video	EOL	26	327.5	435 969.0	7 295 492.0	435 101.6	7 297 296.4	2002.1
17/09/2021	12:25	ABP21308_TR18	Video	SOL	23	330.6	434 343.2	7 297 251.4	434 343.2	7 297 251.4	0.0
17/09/2021	12:25	ABP21308_TR18	Still	ABP21308_TR18_001	NA		434 343.2	7 297 251.4	434 342.9	7 297 252.2	0.9
17/09/2021	12:26	ABP21308_TR18	Still	ABP21308_TR18_002	NA		434 343.2	7 297 251.4	434 337.7	7 297 241.6	11.2
17/09/2021	12:27	ABP21308_TR18	Still	ABP21308_TR18_003	NA		434 343.2	7 297 251.4	434 333.5	7 297 229.8	23.7
17/09/2021	12:28	ABP21308_TR18	Still	ABP21308_TR18_004	NA		434 343.2	7 297 251.4	434 330.1	7 297 222.0	32.2
17/09/2021	12:30	ABP21308_TR18	Still	ABP21308_TR18_005	NA		434 343.2	7 297 251.4	434 322.2	7 297 193.1	62.0
17/09/2021	12:31	ABP21308_TR18	Still	ABP21308_TR18_006	NA		434 343.2	7 297 251.4	434 312.6	7 297 171.5	85.6
17/09/2021	12:31	ABP21308_TR18	Still	ABP21308_TR18_007	NA		434 343.2	7 297 251.4	434 311.8	7 297 169.4	87.8
17/09/2021	12:31	ABP21308_TR18	Still	ABP21308_TR18_008	NA		434 343.2	7 297 251.4	434 309.5	7 297 162.0	95.5
17/09/2021	12:31	ABP21308_TR18	Still	ABP21308_TR18_009	NA		434 343.2	7 297 251.4	434 308.7	7 297 159.5	98.2
17/09/2021	12:32	ABP21308_TR18	Still	ABP21308_TR18_010	NA		434 343.2	7 297 251.4	434 307.4	7 297 154.3	103.5
17/09/2021	12:32	ABP21308_TR18	Still	ABP21308_TR18_011	NA		434 343.2	7 297 251.4	434 304.0	7 297 143.1	115.2
17/09/2021	12:32	ABP21308_TR18	Still	ABP21308_TR18_012	NA		434 343.2	7 297 251.4	434 303.1	7 297 140.9	117.6
17/09/2021	12:33	ABP21308_TR18	Still	ABP21308_TR18_013	NA		434 343.2	7 297 251.4	434 301.6	7 297 137.3	121.4
17/09/2021	12:34	ABP21308_TR18	Still	ABP21308_TR18_014	NA		434 343.2	7 297 251.4	434 292.4	7 297 117.4	143.3
17/09/2021	12:34	ABP21308_TR18	Still	ABP21308_TR18_015	NA		434 343.2	7 297 251.4	434 289.3	7 297 116.4	145.4
17/09/2021	12:35	ABP21308_TR18	Still	ABP21308_TR18_016	NA		434 343.2	7 297 251.4	434 281.3	7 297 111.6	152.9
17/09/2021	12:36	ABP21308_TR18	Still	ABP21308_TR18_017	NA		434 343.2	7 297 251.4	434 282.5	7 297 080.7	181.2
17/09/2021	12:37	ABP21308_TR18	Still	ABP21308_TR18_018	NA		434 343.2	7 297 251.4	434 272.8	7 297 057.3	206.5
17/09/2021	12:38	ABP21308_TR18	Still	ABP21308_TR18_019	NA		434 343.2	7 297 251.4	434 267.7	7 297 052.9	212.4

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	12:39	ABP21308_TR18	Still	ABP21308_TR18_020	NA		434 343.2	7 297 251.4	434 263.7	7 297 023.0	241.8
17/09/2021	12:41	ABP21308_TR18	Still	ABP21308_TR18_021	NA		434 343.2	7 297 251.4	434 251.3	7 296 995.3	272.1
17/09/2021	12:43	ABP21308_TR18	Still	ABP21308_TR18_022	NA		434 343.2	7 297 251.4	434 242.1	7 296 966.8	302.0
17/09/2021	12:43	ABP21308_TR18	Still	ABP21308_TR18_023	NA		434 343.2	7 297 251.4	434 243.4	7 296 951.4	316.2
17/09/2021	12:44	ABP21308_TR18	Still	ABP21308_TR18_024	NA		434 343.2	7 297 251.4	434 248.9	7 296 932.5	332.6
17/09/2021	12:46	ABP21308_TR18	Still	ABP21308_TR18_025	NA		434 343.2	7 297 251.4	434 255.5	7 296 909.1	353.4
17/09/2021	12:47	ABP21308_TR18	Still	ABP21308_TR18_026	NA		434 343.2	7 297 251.4	434 259.8	7 296 892.1	368.9
17/09/2021	12:47	ABP21308_TR18	Still	ABP21308_TR18_027	NA		434 343.2	7 297 251.4	434 260.1	7 296 889.1	371.7
17/09/2021	12:48	ABP21308_TR18	Still	ABP21308_TR18_028	NA		434 343.2	7 297 251.4	434 255.4	7 296 872.9	388.5
17/09/2021	12:49	ABP21308_TR18	Still	ABP21308_TR18_029	NA		434 343.2	7 297 251.4	434 248.5	7 296 871.0	392.0
17/09/2021	12:49	ABP21308_TR18	Still	ABP21308_TR18_030	NA		434 343.2	7 297 251.4	434 246.6	7 296 871.3	392.2
17/09/2021	12:50	ABP21308_TR18	Still	ABP21308_TR18_031	NA		434 343.2	7 297 251.4	434 202.0	7 296 851.1	424.5
17/09/2021	12:51	ABP21308_TR18	Still	ABP21308_TR18_032	NA		434 343.2	7 297 251.4	434 193.3	7 296 825.2	451.8
17/09/2021	12:53	ABP21308_TR18	Still	ABP21308_TR18_033	NA		434 343.2	7 297 251.4	434 182.2	7 296 797.0	482.1
17/09/2021	13:01	ABP21308_TR18	Still	ABP21308_TR18_034	NA		434 343.2	7 297 251.4	434 128.6	7 296 683.8	606.8
17/09/2021	13:01	ABP21308_TR18	Still	ABP21308_TR18_035	NA		434 343.2	7 297 251.4	434 126.8	7 296 680.2	610.8
17/09/2021	13:01	ABP21308_TR18	Still	ABP21308_TR18_036	NA		434 343.2	7 297 251.4	434 125.1	7 296 676.3	615.1
17/09/2021	13:02	ABP21308_TR18	Still	ABP21308_TR18_037	NA		434 343.2	7 297 251.4	434 121.1	7 296 669.2	623.1
17/09/2021	13:04	ABP21308_TR18	Still	ABP21308_TR18_038	NA		434 343.2	7 297 251.4	434 132.6	7 296 635.5	650.9
17/09/2021	13:05	ABP21308_TR18	Still	ABP21308_TR18_039	NA		434 343.2	7 297 251.4	434 129.4	7 296 609.1	676.9
17/09/2021	13:06	ABP21308_TR18	Still	ABP21308_TR18_040	NA		434 343.2	7 297 251.4	434 127.3	7 296 605.6	680.9
17/09/2021	13:07	ABP21308_TR18	Still	ABP21308_TR18_041	NA		434 343.2	7 297 251.4	434 110.1	7 296 588.3	702.9
17/09/2021	13:07	ABP21308_TR18	Still	ABP21308_TR18_042	NA		434 343.2	7 297 251.4	434 105.8	7 296 579.0	713.1
17/09/2021	13:08	ABP21308_TR18	Still	ABP21308_TR18_043	NA		434 343.2	7 297 251.4	434 098.0	7 296 562.7	731.0
17/09/2021	13:09	ABP21308_TR18	Still	ABP21308_TR18_044	NA		434 343.2	7 297 251.4	434 096.2	7 296 553.4	740.4
17/09/2021	13:09	ABP21308_TR18	Still	ABP21308_TR18_045	NA		434 343.2	7 297 251.4	434 095.8	7 296 549.7	744.0
17/09/2021	13:12	ABP21308_TR18	Still	ABP21308_TR18_046	NA		434 343.2	7 297 251.4	434 081.0	7 296 512.1	784.4
17/09/2021	13:14	ABP21308_TR18	Still	ABP21308_TR18_047	NA		434 343.2	7 297 251.4	434 063.7	7 296 474.9	825.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	13:14	ABP21308_TR18	Still	ABP21308_TR18_048	NA		434 343.2	7 297 251.4	434 063.2	7 296 473.2	827.0
17/09/2021	13:15	ABP21308_TR18	Still	ABP21308_TR18_049	NA		434 343.2	7 297 251.4	434 062.4	7 296 460.9	838.9
17/09/2021	13:15	ABP21308_TR18	Still	ABP21308_TR18_050	NA		434 343.2	7 297 251.4	434 063.1	7 296 460.3	839.2
17/09/2021	13:16	ABP21308_TR18	Still	ABP21308_TR18_051	NA		434 343.2	7 297 251.4	434 056.4	7 296 431.2	868.9
17/09/2021	13:16	ABP21308_TR18	Still	ABP21308_TR18_052	NA		434 343.2	7 297 251.4	434 055.3	7 296 427.4	872.8
17/09/2021	13:17	ABP21308_TR18	Still	ABP21308_TR18_053	NA		434 343.2	7 297 251.4	434 053.3	7 296 423.3	877.4
17/09/2021	13:17	ABP21308_TR18	Still	ABP21308_TR18_054	NA		434 343.2	7 297 251.4	434 052.7	7 296 419.9	880.8
17/09/2021	13:18	ABP21308_TR18	Still	ABP21308_TR18_055	NA		434 343.2	7 297 251.4	434 048.4	7 296 395.2	905.5
17/09/2021	13:18	ABP21308_TR18	Still	ABP21308_TR18_056	NA		434 343.2	7 297 251.4	434 046.7	7 296 391.8	909.3
17/09/2021	13:18	ABP21308_TR18	Still	ABP21308_TR18_057	NA		434 343.2	7 297 251.4	434 046.3	7 296 389.8	911.3
17/09/2021	13:18	ABP21308_TR18	Still	ABP21308_TR18_058	NA		434 343.2	7 297 251.4	434 045.3	7 296 385.9	915.3
17/09/2021	13:19	ABP21308_TR18	Still	ABP21308_TR18_059	NA		434 343.2	7 297 251.4	434 038.7	7 296 378.0	925.0
17/09/2021	13:19	ABP21308_TR18	Still	ABP21308_TR18_060	NA		434 343.2	7 297 251.4	434 038.2	7 296 377.7	925.4
17/09/2021	13:20	ABP21308_TR18	Still	ABP21308_TR18_061	NA		434 343.2	7 297 251.4	434 036.9	7 296 376.5	927.0
17/09/2021	13:20	ABP21308_TR18	Still	ABP21308_TR18_062	NA		434 343.2	7 297 251.4	434 035.1	7 296 373.1	930.8
17/09/2021	13:20	ABP21308_TR18	Still	ABP21308_TR18_063	NA		434 343.2	7 297 251.4	434 029.3	7 296 368.2	937.3
17/09/2021	13:21	ABP21308_TR18	Still	ABP21308_TR18_064	NA		434 343.2	7 297 251.4	434 032.0	7 296 362.1	942.2
17/09/2021	13:21	ABP21308_TR18	Still	ABP21308_TR18_065	NA		434 343.2	7 297 251.4	434 033.6	7 296 361.5	942.2
17/09/2021	13:22	ABP21308_TR18	Still	ABP21308_TR18_066	NA		434 343.2	7 297 251.4	434 045.2	7 296 379.5	921.4
17/09/2021	13:22	ABP21308_TR18	Still	ABP21308_TR18_067	NA		434 343.2	7 297 251.4	434 037.2	7 296 360.6	941.9
17/09/2021	13:25	ABP21308_TR18	Still	ABP21308_TR18_068	NA		434 343.2	7 297 251.4	434 022.8	7 296 324.3	980.9
17/09/2021	13:25	ABP21308_TR18	Still	ABP21308_TR18_069	NA		434 343.2	7 297 251.4	434 014.2	7 296 314.2	993.3
17/09/2021	13:28	ABP21308_TR18	Still	ABP21308_TR18_070	NA		434 343.2	7 297 251.4	433 999.3	7 296 275.5	1034.7
17/09/2021	13:30	ABP21308_TR18	Still	ABP21308_TR18_071	NA		434 343.2	7 297 251.4	433 983.4	7 296 234.6	1078.6
17/09/2021	13:31	ABP21308_TR18	Still	ABP21308_TR18_072	NA		434 343.2	7 297 251.4	433 977.9	7 296 216.6	1097.4
17/09/2021	13:32	ABP21308_TR18	Still	ABP21308_TR18_073	NA		434 343.2	7 297 251.4	433 973.1	7 296 207.6	1107.5
17/09/2021	13:34	ABP21308_TR18	Still	ABP21308_TR18_074	NA		434 343.2	7 297 251.4	433 960.9	7 296 168.0	1148.9
17/09/2021	13:34	ABP21308_TR18	Still	ABP21308_TR18_075	NA		434 343.2	7 297 251.4	433 959.6	7 296 164.5	1152.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	13:34	ABP21308_TR18	Still	ABP21308_TR18_076	NA		434 343.2	7 297 251.4	433 958.4	7 296 161.1	1156.2
17/09/2021	13:35	ABP21308_TR18	Still	ABP21308_TR18_077	NA		434 343.2	7 297 251.4	433 953.0	7 296 150.5	1168.0
17/09/2021	13:36	ABP21308_TR18	Still	ABP21308_TR18_078	NA		434 343.2	7 297 251.4	433 946.6	7 296 135.3	1184.5
17/09/2021	13:36	ABP21308_TR18	Still	ABP21308_TR18_079	NA		434 343.2	7 297 251.4	433 946.5	7 296 133.3	1186.4
17/09/2021	13:36	ABP21308_TR18	Still	ABP21308_TR18_080	NA		434 343.2	7 297 251.4	433 946.6	7 296 131.8	1187.8
17/09/2021	13:36	ABP21308_TR18	Still	ABP21308_TR18_081	NA		434 343.2	7 297 251.4	433 946.4	7 296 130.6	1189.0
17/09/2021	13:36	ABP21308_TR18	Still	ABP21308_TR18_082	NA		434 343.2	7 297 251.4	433 946.4	7 296 129.5	1190.0
17/09/2021	13:37	ABP21308_TR18	Still	ABP21308_TR18_083	NA		434 343.2	7 297 251.4	433 946.0	7 296 120.4	1198.7
17/09/2021	13:38	ABP21308_TR18	Still	ABP21308_TR18_084	NA		434 343.2	7 297 251.4	433 938.5	7 296 105.3	1215.5
17/09/2021	13:38	ABP21308_TR18	Still	ABP21308_TR18_085	NA		434 343.2	7 297 251.4	433 932.6	7 296 094.5	1227.6
17/09/2021	13:39	ABP21308_TR18	Still	ABP21308_TR18_086	NA		434 343.2	7 297 251.4	433 930.5	7 296 091.0	1231.6
17/09/2021	13:40	ABP21308_TR18	Still	ABP21308_TR18_087	NA		434 343.2	7 297 251.4	433 921.4	7 296 071.5	1253.0
17/09/2021	13:43	ABP21308_TR18	Still	ABP21308_TR18_088	NA		434 343.2	7 297 251.4	433 905.9	7 296 013.2	1313.2
17/09/2021	13:43	ABP21308_TR18	Still	ABP21308_TR18_089	NA		434 343.2	7 297 251.4	433 906.5	7 296 011.2	1314.8
17/09/2021	13:44	ABP21308_TR18	Still	ABP21308_TR18_090	NA		434 343.2	7 297 251.4	433 905.5	7 295 996.0	1329.5
17/09/2021	13:45	ABP21308_TR18	Still	ABP21308_TR18_091	NA		434 343.2	7 297 251.4	433 903.7	7 295 991.3	1334.5
17/09/2021	13:45	ABP21308_TR18	Still	ABP21308_TR18_092	NA		434 343.2	7 297 251.4	433 904.1	7 295 988.7	1336.9
17/09/2021	13:45	ABP21308_TR18	Still	ABP21308_TR18_093	NA		434 343.2	7 297 251.4	433 904.0	7 295 987.9	1337.7
17/09/2021	13:45	ABP21308_TR18	Still	ABP21308_TR18_094	NA		434 343.2	7 297 251.4	433 903.8	7 295 986.7	1338.9
17/09/2021	13:46	ABP21308_TR18	Still	ABP21308_TR18_095	NA		434 343.2	7 297 251.4	433 907.4	7 295 984.2	1340.0
17/09/2021	13:48	ABP21308_TR18	Still	ABP21308_TR18_096	NA		434 343.2	7 297 251.4	433 870.3	7 295 992.4	1344.9
17/09/2021	13:51	ABP21308_TR18	Still	ABP21308_TR18_097	NA		434 343.2	7 297 251.4	433 878.4	7 295 929.1	1401.6
17/09/2021	13:53	ABP21308_TR18	Still	ABP21308_TR18_098	NA		434 343.2	7 297 251.4	433 870.0	7 295 909.9	1422.5
17/09/2021	13:54	ABP21308_TR18	Still	ABP21308_TR18_099	NA		434 343.2	7 297 251.4	433 859.7	7 295 889.4	1445.3
17/09/2021	13:54	ABP21308_TR18	Still	ABP21308_TR18_100	NA		434 343.2	7 297 251.4	433 857.5	7 295 883.6	1451.5
17/09/2021	13:58	ABP21308_TR18	Still	ABP21308_TR18_101	NA		434 343.2	7 297 251.4	433 834.5	7 295 810.3	1528.2
17/09/2021	13:58	ABP21308_TR18	Still	ABP21308_TR18_102	NA		434 343.2	7 297 251.4	433 834.3	7 295 807.8	1530.7
17/09/2021	14:01	ABP21308_TR18	Still	ABP21308_TR18_103	NA		434 343.2	7 297 251.4	433 814.8	7 295 759.1	1583.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	14:05	ABP21308_TR18	Still	ABP21308_TR18_104	NA		434 343.2	7 297 251.4	433 798.7	7 295 700.1	1644.1
17/09/2021	14:07	ABP21308_TR18	Still	ABP21308_TR18_105	NA		434 343.2	7 297 251.4	433 780.7	7 295 660.0	1687.9
17/09/2021	14:10	ABP21308_TR18	Still	ABP21308_TR18_106	NA		434 343.2	7 297 251.4	433 764.8	7 295 607.6	1742.6
17/09/2021	14:10	ABP21308_TR18	Still	ABP21308_TR18_107	NA		434 343.2	7 297 251.4	433 762.6	7 295 603.0	1747.7
17/09/2021	14:10	ABP21308_TR18	Still	ABP21308_TR18_108	NA		434 343.2	7 297 251.4	433 761.2	7 295 599.0	1751.9
17/09/2021	14:13	ABP21308_TR18	Still	ABP21308_TR18_109	NA		434 343.2	7 297 251.4	433 745.0	7 295 553.9	1799.8
17/09/2021	14:17	ABP21308_TR18	Still	ABP21308_TR18_110	NA		434 343.2	7 297 251.4	433 719.9	7 295 480.3	1877.6
17/09/2021	14:20	ABP21308_TR18	Still	ABP21308_TR18_111	NA		434 343.2	7 297 251.4	433 711.7	7 295 426.5	1931.1
17/09/2021	14:21	ABP21308_TR18	Still	ABP21308_TR18_112	NA		434 343.2	7 297 251.4	433 710.1	7 295 414.5	1942.9
17/09/2021	14:22	ABP21308_TR18	Still	ABP21308_TR18_113	NA		434 343.2	7 297 251.4	433 708.1	7 295 401.8	1955.6
17/09/2021	14:22	ABP21308_TR18	Still	ABP21308_TR18_114	NA		434 343.2	7 297 251.4	433 707.0	7 295 385.4	1971.5
17/09/2021	14:23	ABP21308_TR18	Still	ABP21308_TR18_115	NA		434 343.2	7 297 251.4	433 704.5	7 295 360.8	1995.6
17/09/2021	14:23	ABP21308_TR18	Still	ABP21308_TR18_116	NA		434 343.2	7 297 251.4	433 703.9	7 295 357.3	1999.1
17/09/2021	14:24	ABP21308_TR18	Still	ABP21308_TR18_117	NA		434 343.2	7 297 251.4	433 703.7	7 295 355.2	2001.1
17/09/2021	14:24	ABP21308_TR18	Still	ABP21308_TR18_118	NA		434 343.2	7 297 251.4	433 703.6	7 295 340.2	2015.4
17/09/2021	14:26	ABP21308_TR18	Still	ABP21308_TR18_119	NA		434 343.2	7 297 251.4	433 670.1	7 295 356.7	2010.7
17/09/2021	14:26	ABP21308_TR18	Still	ABP21308_TR18_120	NA		434 343.2	7 297 251.4	433 671.6	7 295 358.6	2008.4
17/09/2021	14:27	ABP21308_TR18	Still	ABP21308_TR18_121	NA		434 343.2	7 297 251.4	433 673.3	7 295 364.2	2002.6
17/09/2021	14:27	ABP21308_TR18	Still	ABP21308_TR18_122	NA		434 343.2	7 297 251.4	433 674.3	7 295 367.9	1998.7
17/09/2021	14:28	ABP21308_TR18	Still	ABP21308_TR18_123	NA		434 343.2	7 297 251.4	433 672.4	7 295 361.8	2005.1
17/09/2021	14:28	ABP21308_TR18	Still	ABP21308_TR18_124	NA		434 343.2	7 297 251.4	433 670.8	7 295 360.7	2006.7
17/09/2021	14:29	ABP21308_TR18	Still	ABP21308_TR18_125	NA		434 343.2	7 297 251.4	433 666.2	7 295 360.0	2008.9
17/09/2021	14:29	ABP21308_TR18	Still	ABP21308_TR18_126	NA		434 343.2	7 297 251.4	433 673.9	7 295 354.9	2011.1
17/09/2021	14:30	ABP21308_TR18	Video	EOL	24	337.8	434 343.2	7 297 251.4	433 674.5	7 295 355.0	2010.8
17/09/2021	10:01	ABP21308_TR19	Video	SOL	21	340.4	432 173.5	7 296 530.9	432 173.5	7 296 530.9	0.0
17/09/2021	10:01	ABP21308_TR19	Still	ABP21308_TR19_001	NA		432 173.5	7 296 530.9	432 173.5	7 296 530.3	0.6
17/09/2021	10:07	ABP21308_TR19	Still	ABP21308_TR19_002	NA		432 173.5	7 296 530.9	432 250.3	7 296 580.9	91.6
17/09/2021	10:08	ABP21308_TR19	Still	ABP21308_TR19_003	NA		432 173.5	7 296 530.9	432 263.3	7 296 589.2	107.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	10:13	ABP21308_TR19	Still	ABP21308_TR19_004	NA		432 173.5	7 296 530.9	432 353.5	7 296 624.9	203.1
17/09/2021	10:13	ABP21308_TR19	Still	ABP21308_TR19_005	NA		432 173.5	7 296 530.9	432 358.7	7 296 623.6	207.1
17/09/2021	10:15	ABP21308_TR19	Still	ABP21308_TR19_006	NA		432 173.5	7 296 530.9	432 381.7	7 296 649.3	239.5
17/09/2021	10:15	ABP21308_TR19	Still	ABP21308_TR19_007	NA		432 173.5	7 296 530.9	432 382.8	7 296 650.9	241.3
17/09/2021	10:16	ABP21308_TR19	Still	ABP21308_TR19_008	NA		432 173.5	7 296 530.9	432 394.9	7 296 666.5	259.6
17/09/2021	10:18	ABP21308_TR19	Still	ABP21308_TR19_009	NA		432 173.5	7 296 530.9	432 428.3	7 296 699.9	305.8
17/09/2021	10:21	ABP21308_TR19	Still	ABP21308_TR19_010	NA		432 173.5	7 296 530.9	432 464.3	7 296 723.2	348.6
17/09/2021	10:23	ABP21308_TR19	Still	ABP21308_TR19_011	NA		432 173.5	7 296 530.9	432 497.0	7 296 745.1	388.0
17/09/2021	10:26	ABP21308_TR19	Still	ABP21308_TR19_012	NA		432 173.5	7 296 530.9	432 554.3	7 296 782.6	456.5
17/09/2021	10:29	ABP21308_TR19	Still	ABP21308_TR19_013	NA		432 173.5	7 296 530.9	432 596.0	7 296 810.5	506.6
17/09/2021	10:32	ABP21308_TR19	Still	ABP21308_TR19_014	NA		432 173.5	7 296 530.9	432 639.0	7 296 840.0	558.8
17/09/2021	10:34	ABP21308_TR19	Still	ABP21308_TR19_015	NA		432 173.5	7 296 530.9	432 666.2	7 296 857.9	591.3
17/09/2021	10:34	ABP21308_TR19	Still	ABP21308_TR19_016	NA		432 173.5	7 296 530.9	432 672.5	7 296 863.6	599.7
17/09/2021	10:34	ABP21308_TR19	Still	ABP21308_TR19_017	NA		432 173.5	7 296 530.9	432 678.0	7 296 867.3	606.4
17/09/2021	10:37	ABP21308_TR19	Still	ABP21308_TR19_018	NA		432 173.5	7 296 530.9	432 716.5	7 296 892.7	652.5
17/09/2021	10:38	ABP21308_TR19	Still	ABP21308_TR19_019	NA		432 173.5	7 296 530.9	432 741.6	7 296 908.7	682.3
17/09/2021	10:40	ABP21308_TR19	Still	ABP21308_TR19_020	NA		432 173.5	7 296 530.9	432 774.2	7 296 931.4	722.0
17/09/2021	10:41	ABP21308_TR19	Still	ABP21308_TR19_021	NA		432 173.5	7 296 530.9	432 781.8	7 296 933.6	729.5
17/09/2021	10:43	ABP21308_TR19	Still	ABP21308_TR19_022	NA		432 173.5	7 296 530.9	432 808.6	7 296 951.1	761.5
17/09/2021	10:44	ABP21308_TR19	Still	ABP21308_TR19_023	NA		432 173.5	7 296 530.9	432 825.8	7 296 963.5	782.7
17/09/2021	10:45	ABP21308_TR19	Still	ABP21308_TR19_024	NA		432 173.5	7 296 530.9	432 843.8	7 296 970.9	801.8
17/09/2021	10:45	ABP21308_TR19	Still	ABP21308_TR19_025	NA		432 173.5	7 296 530.9	432 844.1	7 296 972.9	803.2
17/09/2021	10:45	ABP21308_TR19	Still	ABP21308_TR19_026	NA		432 173.5	7 296 530.9	432 846.6	7 296 974.1	805.9
17/09/2021	10:45	ABP21308_TR19	Still	ABP21308_TR19_027	NA		432 173.5	7 296 530.9	432 848.4	7 296 974.9	807.9
17/09/2021	10:46	ABP21308_TR19	Still	ABP21308_TR19_028	NA		432 173.5	7 296 530.9	432 848.9	7 296 976.0	808.9
17/09/2021	10:46	ABP21308_TR19	Still	ABP21308_TR19_029	NA		432 173.5	7 296 530.9	432 850.9	7 296 980.9	813.2
17/09/2021	10:46	ABP21308_TR19	Still	ABP21308_TR19_030	NA		432 173.5	7 296 530.9	432 857.1	7 296 992.0	824.6
17/09/2021	10:47	ABP21308_TR19	Still	ABP21308_TR19_031	NA		432 173.5	7 296 530.9	432 860.0	7 296 995.1	828.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	10:47	ABP21308_TR19	Still	ABP21308_TR19_032	NA		432 173.5	7 296 530.9	432 861.3	7 296 997.0	830.9
17/09/2021	10:47	ABP21308_TR19	Still	ABP21308_TR19_033	NA		432 173.5	7 296 530.9	432 864.1	7 296 999.5	834.6
17/09/2021	10:49	ABP21308_TR19	Still	ABP21308_TR19_034	NA		432 173.5	7 296 530.9	432 893.8	7 297 032.3	877.6
17/09/2021	10:51	ABP21308_TR19	Still	ABP21308_TR19_035	NA		432 173.5	7 296 530.9	432 931.6	7 297 032.6	909.1
17/09/2021	10:51	ABP21308_TR19	Still	ABP21308_TR19_036	NA		432 173.5	7 296 530.9	432 932.4	7 297 033.2	910.1
17/09/2021	10:51	ABP21308_TR19	Still	ABP21308_TR19_037	NA		432 173.5	7 296 530.9	432 937.9	7 297 036.9	916.7
17/09/2021	10:53	ABP21308_TR19	Still	ABP21308_TR19_038	NA		432 173.5	7 296 530.9	432 959.6	7 297 053.8	944.1
17/09/2021	10:56	ABP21308_TR19	Still	ABP21308_TR19_039	NA		432 173.5	7 296 530.9	433 018.6	7 297 093.7	1015.4
17/09/2021	10:58	ABP21308_TR19	Still	ABP21308_TR19_040	NA		432 173.5	7 296 530.9	433 047.0	7 297 110.7	1048.4
17/09/2021	10:59	ABP21308_TR19	Still	ABP21308_TR19_041	NA		432 173.5	7 296 530.9	433 059.4	7 297 119.2	1063.4
17/09/2021	11:03	ABP21308_TR19	Still	ABP21308_TR19_042	NA		432 173.5	7 296 530.9	433 097.5	7 297 165.2	1120.8
17/09/2021	11:03	ABP21308_TR19	Still	ABP21308_TR19_043	NA		432 173.5	7 296 530.9	433 095.7	7 297 173.6	1124.1
17/09/2021	11:04	ABP21308_TR19	Still	ABP21308_TR19_044	NA		432 173.5	7 296 530.9	433 101.2	7 297 196.6	1141.8
17/09/2021	11:06	ABP21308_TR19	Still	ABP21308_TR19_045	NA		432 173.5	7 296 530.9	433 135.3	7 297 197.9	1170.4
17/09/2021	11:08	ABP21308_TR19	Still	ABP21308_TR19_046	NA		432 173.5	7 296 530.9	433 192.5	7 297 207.5	1223.2
17/09/2021	11:09	ABP21308_TR19	Still	ABP21308_TR19_047	NA		432 173.5	7 296 530.9	433 195.9	7 297 209.5	1227.1
17/09/2021	11:09	ABP21308_TR19	Still	ABP21308_TR19_048	NA		432 173.5	7 296 530.9	433 212.4	7 297 220.4	1246.9
17/09/2021	11:13	ABP21308_TR19	Still	ABP21308_TR19_049	NA		432 173.5	7 296 530.9	433 261.9	7 297 253.5	1306.4
17/09/2021	11:13	ABP21308_TR19	Still	ABP21308_TR19_050	NA		432 173.5	7 296 530.9	433 270.4	7 297 259.2	1316.7
17/09/2021	11:13	ABP21308_TR19	Still	ABP21308_TR19_051	NA		432 173.5	7 296 530.9	433 272.2	7 297 260.3	1318.8
17/09/2021	11:14	ABP21308_TR19	Still	ABP21308_TR19_052	NA		432 173.5	7 296 530.9	433 274.7	7 297 261.1	1321.3
17/09/2021	11:16	ABP21308_TR19	Still	ABP21308_TR19_053	NA		432 173.5	7 296 530.9	433 318.7	7 297 275.3	1365.9
17/09/2021	11:16	ABP21308_TR19	Still	ABP21308_TR19_054	NA		432 173.5	7 296 530.9	433 319.1	7 297 276.0	1366.6
17/09/2021	11:17	ABP21308_TR19	Still	ABP21308_TR19_055	NA		432 173.5	7 296 530.9	433 322.8	7 297 276.7	1370.1
17/09/2021	11:17	ABP21308_TR19	Still	ABP21308_TR19_056	NA		432 173.5	7 296 530.9	433 327.6	7 297 276.4	1373.9
17/09/2021	11:23	ABP21308_TR19	Still	ABP21308_TR19_057	NA		432 173.5	7 296 530.9	433 425.5	7 297 362.4	1503.0
17/09/2021	11:26	ABP21308_TR19	Still	ABP21308_TR19_058	NA		432 173.5	7 296 530.9	433 457.5	7 297 384.4	1541.8
17/09/2021	11:30	ABP21308_TR19	Still	ABP21308_TR19_059	NA		432 173.5	7 296 530.9	433 525.1	7 297 428.6	1622.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	11:31	ABP21308_TR19	Still	ABP21308_TR19_060	NA		432 173.5	7 296 530.9	433 544.9	7 297 440.2	1645.5
17/09/2021	11:32	ABP21308_TR19	Still	ABP21308_TR19_061	NA		432 173.5	7 296 530.9	433 546.9	7 297 454.1	1654.8
17/09/2021	11:34	ABP21308_TR19	Still	ABP21308_TR19_062	NA		432 173.5	7 296 530.9	433 586.7	7 297 469.7	1696.6
17/09/2021	11:35	ABP21308_TR19	Still	ABP21308_TR19_063	NA		432 173.5	7 296 530.9	433 599.1	7 297 477.7	1711.4
17/09/2021	11:38	ABP21308_TR19	Still	ABP21308_TR19_064	NA		432 173.5	7 296 530.9	433 644.4	7 297 509.7	1766.8
17/09/2021	11:38	ABP21308_TR19	Still	ABP21308_TR19_065	NA		432 173.5	7 296 530.9	433 649.9	7 297 513.4	1773.4
17/09/2021	11:40	ABP21308_TR19	Still	ABP21308_TR19_066	NA		432 173.5	7 296 530.9	433 678.3	7 297 530.5	1806.6
17/09/2021	11:41	ABP21308_TR19	Still	ABP21308_TR19_067	NA		432 173.5	7 296 530.9	433 681.9	7 297 532.6	1810.7
17/09/2021	11:41	ABP21308_TR19	Still	ABP21308_TR19_068	NA		432 173.5	7 296 530.9	433 683.9	7 297 533.1	1812.7
17/09/2021	11:41	ABP21308_TR19	Still	ABP21308_TR19_069	NA		432 173.5	7 296 530.9	433 684.5	7 297 533.0	1813.1
17/09/2021	11:42	ABP21308_TR19	Still	ABP21308_TR19_070	NA		432 173.5	7 296 530.9	433 693.9	7 297 542.2	1826.0
17/09/2021	11:42	ABP21308_TR19	Still	ABP21308_TR19_071	NA		432 173.5	7 296 530.9	433 695.1	7 297 542.7	1827.3
17/09/2021	11:42	ABP21308_TR19	Still	ABP21308_TR19_072	NA		432 173.5	7 296 530.9	433 695.7	7 297 543.4	1828.2
17/09/2021	11:44	ABP21308_TR19	Still	ABP21308_TR19_073	NA		432 173.5	7 296 530.9	433 731.3	7 297 565.7	1870.2
17/09/2021	11:46	ABP21308_TR19	Still	ABP21308_TR19_074	NA		432 173.5	7 296 530.9	433 761.6	7 297 584.5	1905.8
17/09/2021	11:50	ABP21308_TR19	Still	ABP21308_TR19_075	NA		432 173.5	7 296 530.9	433 835.1	7 297 634.3	1994.6
17/09/2021	11:51	ABP21308_TR19	Still	ABP21308_TR19_076	NA		432 173.5	7 296 530.9	433 839.8	7 297 638.1	2000.6
17/09/2021	11:51	ABP21308_TR19	Video	EOL	22	347.7	432 173.5	7 296 530.9	433 839.4	7 297 638.0	2000.2
17/09/2021	06:57	ABP21308_TR20	Video	SOL	19	347.9	433 682.2	7 298 058.6	433 682.2	7 298 058.6	0.0
17/09/2021	06:58	ABP21308_TR20	Still	ABP21308-TR20-001	NA		433 682.2	7 298 058.6	433 664.2	7 298 055.7	18.2
17/09/2021	07:00	ABP21308_TR20	Still	ABP21308-TR20-002	NA		433 682.2	7 298 058.6	433 641.3	7 298 054.3	41.1
17/09/2021	07:04	ABP21308_TR20	Still	ABP21308-TR20-003	NA		433 682.2	7 298 058.6	433 598.2	7 298 044.7	85.1
17/09/2021	07:05	ABP21308_TR20	Still	ABP21308-TR20-004	NA		433 682.2	7 298 058.6	433 593.8	7 298 041.6	90.0
17/09/2021	07:05	ABP21308_TR20	Still	ABP21308-TR20-005	NA		433 682.2	7 298 058.6	433 589.1	7 298 040.4	94.9
17/09/2021	07:06	ABP21308_TR20	Still	ABP21308-TR20-006	NA		433 682.2	7 298 058.6	433 584.1	7 298 039.8	99.9
17/09/2021	07:06	ABP21308_TR20	Still	ABP21308-TR20-007	NA		433 682.2	7 298 058.6	433 572.2	7 298 047.6	110.5
17/09/2021	07:07	ABP21308_TR20	Still	ABP21308-TR20-008	NA		433 682.2	7 298 058.6	433 568.5	7 298 050.4	114.0
17/09/2021	07:09	ABP21308_TR20	Still	ABP21308-TR20-009	NA		433 682.2	7 298 058.6	433 540.6	7 298 062.6	141.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	07:10	ABP21308_TR20	Still	ABP21308-TR20-010	NA		433 682.2	7 298 058.6	433 527.4	7 298 071.2	155.3
17/09/2021	07:10	ABP21308_TR20	Still	ABP21308-TR20-011	NA		433 682.2	7 298 058.6	433 507.8	7 298 062.3	174.4
17/09/2021	07:11	ABP21308_TR20	Still	ABP21308-TR20-012	NA		433 682.2	7 298 058.6	433 494.8	7 298 056.2	187.4
17/09/2021	07:12	ABP21308_TR20	Still	ABP21308-TR20-013	NA		433 682.2	7 298 058.6	433 478.8	7 298 046.2	203.8
17/09/2021	07:12	ABP21308_TR20	Still	ABP21308-TR20-014	NA		433 682.2	7 298 058.6	433 471.8	7 298 042.9	211.0
17/09/2021	07:13	ABP21308_TR20	Still	ABP21308-TR20-015	NA		433 682.2	7 298 058.6	433 469.4	7 298 041.3	213.5
17/09/2021	07:14	ABP21308_TR20	Still	ABP21308-TR20-016	NA		433 682.2	7 298 058.6	433 455.3	7 298 033.2	228.3
17/09/2021	07:14	ABP21308_TR20	Still	ABP21308-TR20-017	NA		433 682.2	7 298 058.6	433 448.5	7 298 030.0	235.4
17/09/2021	07:14	ABP21308_TR20	Still	ABP21308-TR20-018	NA		433 682.2	7 298 058.6	433 444.5	7 298 029.9	239.4
17/09/2021	07:15	ABP21308_TR20	Still	ABP21308-TR20-019	NA		433 682.2	7 298 058.6	433 438.1	7 298 025.2	246.4
17/09/2021	07:18	ABP21308_TR20	Still	ABP21308-TR20-020	NA		433 682.2	7 298 058.6	433 393.9	7 298 021.2	290.7
17/09/2021	07:19	ABP21308_TR20	Still	ABP21308-TR20-021	NA		433 682.2	7 298 058.6	433 391.1	7 298 020.5	293.6
17/09/2021	07:19	ABP21308_TR20	Still	ABP21308-TR20-022	NA		433 682.2	7 298 058.6	433 373.1	7 298 016.8	311.9
17/09/2021	07:20	ABP21308_TR20	Still	ABP21308-TR20-023	NA		433 682.2	7 298 058.6	433 356.9	7 298 012.4	328.6
17/09/2021	07:21	ABP21308_TR20	Still	ABP21308-TR20-024	NA		433 682.2	7 298 058.6	433 347.1	7 298 011.5	338.4
17/09/2021	07:21	ABP21308_TR20	Still	ABP21308-TR20-025	NA		433 682.2	7 298 058.6	433 337.1	7 298 010.5	348.4
17/09/2021	07:22	ABP21308_TR20	Still	ABP21308-TR20-026	NA		433 682.2	7 298 058.6	433 325.9	7 298 009.8	359.6
17/09/2021	07:23	ABP21308_TR20	Still	ABP21308-TR20-027	NA		433 682.2	7 298 058.6	433 313.1	7 297 992.7	374.9
17/09/2021	07:23	ABP21308_TR20	Still	ABP21308-TR20-028	NA		433 682.2	7 298 058.6	433 308.7	7 297 988.2	380.1
17/09/2021	07:23	ABP21308_TR20	Still	ABP21308-TR20-029	NA		433 682.2	7 298 058.6	433 299.2	7 297 979.9	391.0
17/09/2021	07:24	ABP21308_TR20	Still	ABP21308-TR20-030	NA		433 682.2	7 298 058.6	433 297.9	7 297 979.4	392.4
17/09/2021	07:24	ABP21308_TR20	Still	ABP21308-TR20-031	NA		433 682.2	7 298 058.6	433 292.7	7 297 976.8	398.0
17/09/2021	07:24	ABP21308_TR20	Still	ABP21308-TR20-032	NA		433 682.2	7 298 058.6	433 287.7	7 297 976.9	402.9
17/09/2021	07:24	ABP21308_TR20	Still	ABP21308-TR20-033	NA		433 682.2	7 298 058.6	433 286.1	7 297 976.9	404.4
17/09/2021	07:25	ABP21308_TR20	Still	ABP21308-TR20-034	NA		433 682.2	7 298 058.6	433 275.4	7 297 992.4	412.2
17/09/2021	07:25	ABP21308_TR20	Still	ABP21308-TR20-035	NA		433 682.2	7 298 058.6	433 271.8	7 297 995.5	415.2
17/09/2021	07:25	ABP21308_TR20	Still	ABP21308-TR20-036	NA		433 682.2	7 298 058.6	433 268.4	7 297 997.2	418.3
17/09/2021	07:26	ABP21308_TR20	Still	ABP21308-TR20-037	NA		433 682.2	7 298 058.6	433 262.1	7 298 003.1	423.8

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	07:29	ABP21308_TR20	Still	ABP21308-TR20-038	NA		433 682.2	7 298 058.6	433 212.7	7 297 995.5	473.7
17/09/2021	07:30	ABP21308_TR20	Still	ABP21308-TR20-039	NA		433 682.2	7 298 058.6	433 201.2	7 297 995.4	485.1
17/09/2021	07:30	ABP21308_TR20	Still	ABP21308-TR20-040	NA		433 682.2	7 298 058.6	433 194.7	7 297 992.8	491.9
17/09/2021	07:31	ABP21308_TR20	Still	ABP21308-TR20-041	NA		433 682.2	7 298 058.6	433 178.0	7 297 990.8	508.7
17/09/2021	07:32	ABP21308_TR20	Still	ABP21308-TR20-042	NA		433 682.2	7 298 058.6	433 163.0	7 297 988.8	523.9
17/09/2021	07:33	ABP21308_TR20	Still	ABP21308-TR20-043	NA		433 682.2	7 298 058.6	433 150.1	7 297 989.2	536.6
17/09/2021	07:34	ABP21308_TR20	Still	ABP21308-TR20-044	NA		433 682.2	7 298 058.6	433 128.3	7 297 985.4	558.7
17/09/2021	07:35	ABP21308_TR20	Still	ABP21308-TR20-045	NA		433 682.2	7 298 058.6	433 090.0	7 297 981.2	597.2
17/09/2021	07:36	ABP21308_TR20	Still	ABP21308-TR20-046	NA		433 682.2	7 298 058.6	433 080.4	7 297 981.1	606.8
17/09/2021	07:36	ABP21308_TR20	Still	ABP21308-TR20-047	NA		433 682.2	7 298 058.6	433 076.5	7 297 981.1	610.6
17/09/2021	07:37	ABP21308_TR20	Still	ABP21308-TR20-048	NA		433 682.2	7 298 058.6	433 041.1	7 297 974.4	646.6
17/09/2021	07:38	ABP21308_TR20	Still	ABP21308-TR20-049	NA		433 682.2	7 298 058.6	433 032.9	7 297 972.8	654.9
17/09/2021	07:38	ABP21308_TR20	Still	ABP21308-TR20-050	NA		433 682.2	7 298 058.6	433 014.3	7 297 968.4	674.0
17/09/2021	07:40	ABP21308_TR20	Still	ABP21308-TR20-051	NA		433 682.2	7 298 058.6	432 976.7	7 297 965.7	711.6
17/09/2021	07:41	ABP21308_TR20	Still	ABP21308-TR20-052	NA		433 682.2	7 298 058.6	432 968.4	7 297 964.7	719.9
17/09/2021	07:42	ABP21308_TR20	Still	ABP21308-TR20-053	NA		433 682.2	7 298 058.6	432 937.3	7 297 961.4	751.2
17/09/2021	07:43	ABP21308_TR20	Still	ABP21308-TR20-054	NA		433 682.2	7 298 058.6	432 915.9	7 297 957.8	772.9
17/09/2021	07:44	ABP21308_TR20	Still	ABP21308-TR20-055	NA		433 682.2	7 298 058.6	432 870.1	7 297 946.7	819.8
17/09/2021	07:45	ABP21308_TR20	Still	ABP21308-TR20-056	NA		433 682.2	7 298 058.6	432 847.5	7 297 946.6	842.2
17/09/2021	07:46	ABP21308_TR20	Still	ABP21308-TR20-057	NA		433 682.2	7 298 058.6	432 826.0	7 297 944.3	863.8
17/09/2021	07:47	ABP21308_TR20	Still	ABP21308-TR20-058	NA		433 682.2	7 298 058.6	432 809.8	7 297 942.9	880.0
17/09/2021	07:47	ABP21308_TR20	Still	ABP21308-TR20-059	NA		433 682.2	7 298 058.6	432 805.7	7 297 942.1	884.2
17/09/2021	07:50	ABP21308_TR20	Still	ABP21308-TR20-060	NA		433 682.2	7 298 058.6	432 754.5	7 297 934.4	936.0
17/09/2021	07:50	ABP21308_TR20	Still	ABP21308-TR20-061	NA		433 682.2	7 298 058.6	432 752.3	7 297 936.6	937.9
17/09/2021	07:51	ABP21308_TR20	Still	ABP21308-TR20-062	NA		433 682.2	7 298 058.6	432 750.0	7 297 937.8	940.0
17/09/2021	07:53	ABP21308_TR20	Still	ABP21308-TR20-063	NA		433 682.2	7 298 058.6	432 746.3	7 297 935.0	944.0
17/09/2021	07:57	ABP21308_TR20	Still	ABP21308-TR20-064	NA		433 682.2	7 298 058.6	432 680.4	7 297 924.8	1010.7
17/09/2021	07:59	ABP21308_TR20	Still	ABP21308-TR20-065	NA		433 682.2	7 298 058.6	432 642.9	7 297 920.6	1048.4

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	07:59	ABP21308_TR20	Still	ABP21308-TR20-066	NA		433 682.2	7 298 058.6	432 632.0	7 297 918.9	1059.5
17/09/2021	08:02	ABP21308_TR20	Still	ABP21308-TR20-067	NA		433 682.2	7 298 058.6	432 616.0	7 297 915.1	1075.8
17/09/2021	08:03	ABP21308_TR20	Still	ABP21308-TR20-068	NA		433 682.2	7 298 058.6	432 594.2	7 297 912.9	1097.7
17/09/2021	08:04	ABP21308_TR20	Still	ABP21308-TR20-069	NA		433 682.2	7 298 058.6	432 575.3	7 297 911.4	1116.6
17/09/2021	08:07	ABP21308_TR20	Still	ABP21308-TR20-070	NA		433 682.2	7 298 058.6	432 546.1	7 297 907.1	1146.2
17/09/2021	08:09	ABP21308_TR20	Still	ABP21308-TR20-071	NA		433 682.2	7 298 058.6	432 510.5	7 297 904.8	1181.8
17/09/2021	08:10	ABP21308_TR20	Still	ABP21308-TR20-072	NA		433 682.2	7 298 058.6	432 479.2	7 297 898.3	1213.6
17/09/2021	08:11	ABP21308_TR20	Still	ABP21308-TR20-073	NA		433 682.2	7 298 058.6	432 462.2	7 297 896.0	1230.8
17/09/2021	08:15	ABP21308_TR20	Still	ABP21308-TR20-074	NA		433 682.2	7 298 058.6	432 410.9	7 297 890.1	1282.4
17/09/2021	08:15	ABP21308_TR20	Still	ABP21308-TR20-075	NA		433 682.2	7 298 058.6	432 406.2	7 297 889.0	1287.2
17/09/2021	08:15	ABP21308_TR20	Still	ABP21308-TR20-076	NA		433 682.2	7 298 058.6	432 395.6	7 297 887.4	1297.9
17/09/2021	08:16	ABP21308_TR20	Still	ABP21308-TR20-077	NA		433 682.2	7 298 058.6	432 378.1	7 297 885.2	1315.6
17/09/2021	08:17	ABP21308_TR20	Still	ABP21308-TR20-078	NA		433 682.2	7 298 058.6	432 371.1	7 297 883.8	1322.7
17/09/2021	08:18	ABP21308_TR20	Still	ABP21308-TR20-079	NA		433 682.2	7 298 058.6	432 367.4	7 297 882.9	1326.5
17/09/2021	08:19	ABP21308_TR20	Still	ABP21308-TR20-080	NA		433 682.2	7 298 058.6	432 326.3	7 297 876.6	1368.1
17/09/2021	08:21	ABP21308_TR20	Still	ABP21308-TR20-081	NA		433 682.2	7 298 058.6	432 286.5	7 297 873.4	1407.9
17/09/2021	08:22	ABP21308_TR20	Still	ABP21308-TR20-082	NA		433 682.2	7 298 058.6	432 271.7	7 297 874.1	1422.5
17/09/2021	08:23	ABP21308_TR20	Still	ABP21308-TR20-083	NA		433 682.2	7 298 058.6	432 251.8	7 297 867.5	1443.1
17/09/2021	08:25	ABP21308_TR20	Still	ABP21308-TR20-084	NA		433 682.2	7 298 058.6	432 221.1	7 297 863.9	1474.0
17/09/2021	08:26	ABP21308_TR20	Still	ABP21308-TR20-085	NA		433 682.2	7 298 058.6	432 214.1	7 297 863.1	1481.1
17/09/2021	08:29	ABP21308_TR20	Still	ABP21308-TR20-086	NA		433 682.2	7 298 058.6	432 155.7	7 297 852.8	1540.3
17/09/2021	08:31	ABP21308_TR20	Still	ABP21308-TR20-087	NA		433 682.2	7 298 058.6	432 121.3	7 297 850.7	1574.7
17/09/2021	08:33	ABP21308_TR20	Still	ABP21308-TR20-088	NA		433 682.2	7 298 058.6	432 107.1	7 297 848.5	1589.1
17/09/2021	08:34	ABP21308_TR20	Still	ABP21308-TR20-089	NA		433 682.2	7 298 058.6	432 077.8	7 297 845.2	1618.5
17/09/2021	08:35	ABP21308_TR20	Still	ABP21308-TR20-090	NA		433 682.2	7 298 058.6	432 054.4	7 297 841.8	1642.2
17/09/2021	08:36	ABP21308_TR20	Still	ABP21308-TR20-091	NA		433 682.2	7 298 058.6	432 037.1	7 297 839.7	1659.6
17/09/2021	08:52	ABP21308_TR20	Still	ABP21308-TR20-092	NA		433 682.2	7 298 058.6	432 044.9	7 297 838.0	1652.1
17/09/2021	08:56	ABP21308_TR20	Still	ABP21308-TR20-093	NA		433 682.2	7 298 058.6	431 957.5	7 297 827.8	1740.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
17/09/2021	08:59	ABP21308_TR20	Still	ABP21308-TR20-094	NA		433 682.2	7 298 058.6	431 917.8	7 297 823.0	1780.1
17/09/2021	09:02	ABP21308_TR20	Still	ABP21308-TR20-095	NA		433 682.2	7 298 058.6	431 857.4	7 297 816.6	1840.8
17/09/2021	09:02	ABP21308_TR20	Still	ABP21308-TR20-096	NA		433 682.2	7 298 058.6	431 852.2	7 297 816.9	1845.9
17/09/2021	09:05	ABP21308_TR20	Still	ABP21308-TR20-097	NA		433 682.2	7 298 058.6	431 796.9	7 297 806.5	1902.1
17/09/2021	09:06	ABP21308_TR20	Still	ABP21308-TR20-098	NA		433 682.2	7 298 058.6	431 763.6	7 297 803.6	1935.5
17/09/2021	09:07	ABP21308_TR20	Still	ABP21308-TR20-099	NA		433 682.2	7 298 058.6	431 754.1	7 297 804.3	1944.8
17/09/2021	09:09	ABP21308_TR20	Still	ABP21308-TR20-100	NA		433 682.2	7 298 058.6	431 732.1	7 297 816.8	1965.0
17/09/2021	09:09	ABP21308_TR20	Still	ABP21308-TR20-101	NA		433 682.2	7 298 058.6	431 730.0	7 297 821.4	1966.6
17/09/2021	09:09	ABP21308_TR20	Still	ABP21308-TR20-102	NA		433 682.2	7 298 058.6	431 730.1	7 297 822.3	1966.3
17/09/2021	09:10	ABP21308_TR20	Still	ABP21308-TR20-103	NA		433 682.2	7 298 058.6	431 718.1	7 297 808.8	1979.9
17/09/2021	09:10	ABP21308_TR20	Still	ABP21308-TR20-104	NA		433 682.2	7 298 058.6	431 715.7	7 297 803.7	1983.0
17/09/2021	09:12	ABP21308_TR20	Still	ABP21308-TR20-105	NA		433 682.2	7 298 058.6	431 695.6	7 297 793.2	2004.2
17/09/2021	09:12	ABP21308_TR20	Video	EOL	20	344.2	433 682.2	7 298 058.6	431 695.5	7 297 793.2	2004.3
18/09/2021	03:04	ABP21308_TR21	Video	SOL	33	323.4	432 026.5	7 299 623.1	432 026.5	7 299 623.1	0.0
18/09/2021	03:04	ABP21308_TR21	Still	ABP21308-TR21-001	NA		432 026.5	7 299 623.1	432 026.3	7 299 623.3	0.3
18/09/2021	03:05	ABP21308_TR21	Still	ABP21308-TR21-002	NA		432 026.5	7 299 623.1	432 060.0	7 299 627.2	33.7
18/09/2021	03:05	ABP21308_TR21	Still	ABP21308-TR21-003	NA		432 026.5	7 299 623.1	432 061.3	7 299 627.3	35.1
18/09/2021	03:09	ABP21308_TR21	Still	ABP21308-TR21-004	NA		432 026.5	7 299 623.1	432 111.9	7 299 571.7	99.7
18/09/2021	03:09	ABP21308_TR21	Still	ABP21308-TR21-005	NA		432 026.5	7 299 623.1	432 113.5	7 299 570.5	101.7
18/09/2021	03:09	ABP21308_TR21	Still	ABP21308-TR21-006	NA		432 026.5	7 299 623.1	432 117.7	7 299 568.0	106.6
18/09/2021	03:10	ABP21308_TR21	Still	ABP21308-TR21-007	NA		432 026.5	7 299 623.1	432 122.4	7 299 564.5	112.4
18/09/2021	03:11	ABP21308_TR21	Still	ABP21308-TR21-008	NA		432 026.5	7 299 623.1	432 148.1	7 299 549.5	142.1
18/09/2021	03:11	ABP21308_TR21	Still	ABP21308-TR21-009	NA		432 026.5	7 299 623.1	432 155.8	7 299 546.5	150.3
18/09/2021	03:11	ABP21308_TR21	Still	ABP21308-TR21-010	NA		432 026.5	7 299 623.1	432 159.8	7 299 544.9	154.5
18/09/2021	03:12	ABP21308_TR21	Still	ABP21308-TR21-011	NA		432 026.5	7 299 623.1	432 170.7	7 299 540.6	166.1
18/09/2021	03:12	ABP21308_TR21	Still	ABP21308-TR21-012	NA		432 026.5	7 299 623.1	432 171.6	7 299 541.6	166.4
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-013	NA		432 026.5	7 299 623.1	432 180.6	7 299 535.4	177.3
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-014	NA		432 026.5	7 299 623.1	432 181.1	7 299 534.6	178.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-015	NA		432 026.5	7 299 623.1	432 185.8	7 299 530.9	184.1
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-016	NA		432 026.5	7 299 623.1	432 187.8	7 299 528.7	186.9
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-017	NA		432 026.5	7 299 623.1	432 189.1	7 299 526.6	189.1
18/09/2021	03:13	ABP21308_TR21	Still	ABP21308-TR21-018	NA		432 026.5	7 299 623.1	432 191.4	7 299 524.3	192.2
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-019	NA		432 026.5	7 299 623.1	432 196.8	7 299 515.2	201.6
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-020	NA		432 026.5	7 299 623.1	432 198.0	7 299 514.0	203.3
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-021	NA		432 026.5	7 299 623.1	432 200.0	7 299 511.7	206.2
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-022	NA		432 026.5	7 299 623.1	432 201.7	7 299 508.4	209.4
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-023	NA		432 026.5	7 299 623.1	432 202.3	7 299 506.9	210.7
18/09/2021	03:14	ABP21308_TR21	Still	ABP21308-TR21-024	NA		432 026.5	7 299 623.1	432 205.6	7 299 503.3	215.5
18/09/2021	03:15	ABP21308_TR21	Still	ABP21308-TR21-025	NA		432 026.5	7 299 623.1	432 208.1	7 299 501.5	218.6
18/09/2021	03:15	ABP21308_TR21	Still	ABP21308-TR21-026	NA		432 026.5	7 299 623.1	432 211.9	7 299 500.2	222.4
18/09/2021	03:15	ABP21308_TR21	Still	ABP21308-TR21-027	NA		432 026.5	7 299 623.1	432 216.0	7 299 499.1	226.5
18/09/2021	03:15	ABP21308_TR21	Still	ABP21308-TR21-028	NA		432 026.5	7 299 623.1	432 218.1	7 299 498.1	228.8
18/09/2021	03:15	ABP21308_TR21	Still	ABP21308-TR21-029	NA		432 026.5	7 299 623.1	432 219.3	7 299 497.6	230.0
18/09/2021	03:16	ABP21308_TR21	Still	ABP21308-TR21-030	NA		432 026.5	7 299 623.1	432 235.6	7 299 489.6	248.1
18/09/2021	03:16	ABP21308_TR21	Still	ABP21308-TR21-031	NA		432 026.5	7 299 623.1	432 238.6	7 299 487.7	251.6
18/09/2021	03:16	ABP21308_TR21	Still	ABP21308-TR21-032	NA		432 026.5	7 299 623.1	432 241.7	7 299 486.9	254.7
18/09/2021	03:17	ABP21308_TR21	Still	ABP21308-TR21-033	NA		432 026.5	7 299 623.1	432 252.5	7 299 481.7	266.6
18/09/2021	03:17	ABP21308_TR21	Still	ABP21308-TR21-034	NA		432 026.5	7 299 623.1	432 254.3	7 299 481.4	268.3
18/09/2021	03:17	ABP21308_TR21	Still	ABP21308-TR21-035	NA		432 026.5	7 299 623.1	432 259.1	7 299 481.0	272.6
18/09/2021	03:18	ABP21308_TR21	Still	ABP21308-TR21-036	NA		432 026.5	7 299 623.1	432 261.2	7 299 468.0	281.3
18/09/2021	03:18	ABP21308_TR21	Still	ABP21308-TR21-037	NA		432 026.5	7 299 623.1	432 262.6	7 299 466.3	283.4
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-038	NA		432 026.5	7 299 623.1	432 300.1	7 299 443.1	327.5
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-039	NA		432 026.5	7 299 623.1	432 299.5	7 299 442.8	327.2
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-040	NA		432 026.5	7 299 623.1	432 299.4	7 299 442.2	327.4
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-041	NA		432 026.5	7 299 623.1	432 298.8	7 299 441.2	327.5
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-042	NA		432 026.5	7 299 623.1	432 297.6	7 299 440.8	326.7

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-043	NA		432 026.5	7 299 623.1	432 296.8	7 299 439.7	326.6
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-044	NA		432 026.5	7 299 623.1	432 296.4	7 299 439.2	326.6
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-045	NA		432 026.5	7 299 623.1	432 296.3	7 299 438.8	326.7
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-046	NA		432 026.5	7 299 623.1	432 299.6	7 299 433.5	332.5
18/09/2021	03:20	ABP21308_TR21	Still	ABP21308-TR21-047	NA		432 026.5	7 299 623.1	432 304.7	7 299 429.2	339.1
18/09/2021	03:21	ABP21308_TR21	Still	ABP21308-TR21-048	NA		432 026.5	7 299 623.1	432 307.1	7 299 428.5	341.5
18/09/2021	03:21	ABP21308_TR21	Still	ABP21308-TR21-049	NA		432 026.5	7 299 623.1	432 319.2	7 299 437.6	346.5
18/09/2021	03:21	ABP21308_TR21	Still	ABP21308-TR21-050	NA		432 026.5	7 299 623.1	432 338.9	7 299 441.1	361.5
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-051	NA		432 026.5	7 299 623.1	432 342.6	7 299 441.2	364.7
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-052	NA		432 026.5	7 299 623.1	432 343.8	7 299 441.5	365.6
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-053	NA		432 026.5	7 299 623.1	432 346.1	7 299 444.9	365.9
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-054	NA		432 026.5	7 299 623.1	432 349.2	7 299 444.5	368.8
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-055	NA		432 026.5	7 299 623.1	432 353.5	7 299 442.6	373.5
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-056	NA		432 026.5	7 299 623.1	432 355.9	7 299 441.3	376.2
18/09/2021	03:22	ABP21308_TR21	Still	ABP21308-TR21-057	NA		432 026.5	7 299 623.1	432 358.9	7 299 437.8	380.6
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-058	NA		432 026.5	7 299 623.1	432 363.4	7 299 434.9	385.9
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-059	NA		432 026.5	7 299 623.1	432 364.7	7 299 433.5	387.7
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-060	NA		432 026.5	7 299 623.1	432 366.0	7 299 433.3	389.0
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-061	NA		432 026.5	7 299 623.1	432 367.6	7 299 431.4	391.3
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-062	NA		432 026.5	7 299 623.1	432 369.0	7 299 429.8	393.3
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-063	NA		432 026.5	7 299 623.1	432 372.8	7 299 426.5	398.2
18/09/2021	03:23	ABP21308_TR21	Still	ABP21308-TR21-064	NA		432 026.5	7 299 623.1	432 374.6	7 299 424.5	400.8
18/09/2021	03:24	ABP21308_TR21	Still	ABP21308-TR21-065	NA		432 026.5	7 299 623.1	432 383.1	7 299 417.7	411.5
18/09/2021	03:24	ABP21308_TR21	Still	ABP21308-TR21-066	NA		432 026.5	7 299 623.1	432 385.6	7 299 416.6	414.2
18/09/2021	03:24	ABP21308_TR21	Still	ABP21308-TR21-067	NA		432 026.5	7 299 623.1	432 386.4	7 299 416.4	415.0
18/09/2021	03:25	ABP21308_TR21	Still	ABP21308-TR21-068	NA		432 026.5	7 299 623.1	432 412.1	7 299 402.9	444.0
18/09/2021	03:25	ABP21308_TR21	Still	ABP21308-TR21-069	NA		432 026.5	7 299 623.1	432 416.9	7 299 400.8	449.3
18/09/2021	03:26	ABP21308_TR21	Still	ABP21308-TR21-070	NA		432 026.5	7 299 623.1	432 429.0	7 299 399.4	460.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:26	ABP21308_TR21	Still	ABP21308-TR21-071	NA		432 026.5	7 299 623.1	432 435.4	7 299 397.3	467.1
18/09/2021	03:26	ABP21308_TR21	Still	ABP21308-TR21-072	NA		432 026.5	7 299 623.1	432 436.7	7 299 396.7	468.5
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-073	NA		432 026.5	7 299 623.1	432 451.3	7 299 391.3	483.9
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-074	NA		432 026.5	7 299 623.1	432 451.7	7 299 391.7	484.1
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-075	NA		432 026.5	7 299 623.1	432 452.9	7 299 393.0	484.5
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-076	NA		432 026.5	7 299 623.1	432 454.1	7 299 394.3	485.0
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-077	NA		432 026.5	7 299 623.1	432 456.1	7 299 393.7	487.0
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-078	NA		432 026.5	7 299 623.1	432 461.1	7 299 391.6	492.4
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-079	NA		432 026.5	7 299 623.1	432 464.2	7 299 390.4	495.7
18/09/2021	03:27	ABP21308_TR21	Still	ABP21308-TR21-080	NA		432 026.5	7 299 623.1	432 467.7	7 299 390.0	499.0
18/09/2021	03:28	ABP21308_TR21	Still	ABP21308-TR21-081	NA		432 026.5	7 299 623.1	432 471.4	7 299 386.4	503.9
18/09/2021	03:28	ABP21308_TR21	Still	ABP21308-TR21-082	NA		432 026.5	7 299 623.1	432 473.1	7 299 385.8	505.7
18/09/2021	03:28	ABP21308_TR21	Still	ABP21308-TR21-083	NA		432 026.5	7 299 623.1	432 476.5	7 299 383.4	509.9
18/09/2021	03:28	ABP21308_TR21	Still	ABP21308-TR21-084	NA		432 026.5	7 299 623.1	432 480.8	7 299 379.9	515.3
18/09/2021	03:28	ABP21308_TR21	Still	ABP21308-TR21-085	NA		432 026.5	7 299 623.1	432 485.7	7 299 374.6	522.1
18/09/2021	03:29	ABP21308_TR21	Still	ABP21308-TR21-086	NA		432 026.5	7 299 623.1	432 487.6	7 299 372.2	524.9
18/09/2021	03:29	ABP21308_TR21	Still	ABP21308-TR21-087	NA		432 026.5	7 299 623.1	432 501.3	7 299 359.8	542.9
18/09/2021	03:30	ABP21308_TR21	Still	ABP21308-TR21-088	NA		432 026.5	7 299 623.1	432 505.5	7 299 357.0	548.0
18/09/2021	03:30	ABP21308_TR21	Still	ABP21308-TR21-089	NA		432 026.5	7 299 623.1	432 505.6	7 299 356.6	548.2
18/09/2021	03:30	ABP21308_TR21	Still	ABP21308-TR21-090	NA		432 026.5	7 299 623.1	432 513.4	7 299 353.2	556.7
18/09/2021	03:30	ABP21308_TR21	Still	ABP21308-TR21-091	NA		432 026.5	7 299 623.1	432 515.6	7 299 351.6	559.4
18/09/2021	03:30	ABP21308_TR21	Still	ABP21308-TR21-092	NA		432 026.5	7 299 623.1	432 515.8	7 299 351.3	559.7
18/09/2021	03:32	ABP21308_TR21	Still	ABP21308-TR21-093	NA		432 026.5	7 299 623.1	432 561.3	7 299 337.0	606.5
18/09/2021	03:32	ABP21308_TR21	Still	ABP21308-TR21-094	NA		432 026.5	7 299 623.1	432 561.8	7 299 336.2	607.3
18/09/2021	03:32	ABP21308_TR21	Still	ABP21308-TR21-095	NA		432 026.5	7 299 623.1	432 562.3	7 299 335.9	607.9
18/09/2021	03:36	ABP21308_TR21	Still	ABP21308-TR21-096	NA		432 026.5	7 299 623.1	432 629.8	7 299 292.8	687.8
18/09/2021	03:36	ABP21308_TR21	Still	ABP21308-TR21-097	NA		432 026.5	7 299 623.1	432 629.8	7 299 292.7	687.8
18/09/2021	03:36	ABP21308_TR21	Still	ABP21308-TR21-098	NA		432 026.5	7 299 623.1	432 631.2	7 299 291.6	689.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:36	ABP21308_TR21	Still	ABP21308-TR21-099	NA		432 026.5	7 299 623.1	432 635.2	7 299 289.1	694.3
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-100	NA		432 026.5	7 299 623.1	432 661.7	7 299 274.2	724.7
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-101	NA		432 026.5	7 299 623.1	432 670.9	7 299 268.3	735.6
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-102	NA		432 026.5	7 299 623.1	432 673.0	7 299 266.7	738.2
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-103	NA		432 026.5	7 299 623.1	432 676.1	7 299 265.5	741.5
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-104	NA		432 026.5	7 299 623.1	432 681.5	7 299 264.0	747.0
18/09/2021	03:38	ABP21308_TR21	Still	ABP21308-TR21-105	NA		432 026.5	7 299 623.1	432 683.5	7 299 261.3	750.0
18/09/2021	03:39	ABP21308_TR21	Still	ABP21308-TR21-106	NA		432 026.5	7 299 623.1	432 695.2	7 299 256.6	762.5
18/09/2021	03:39	ABP21308_TR21	Still	ABP21308-TR21-107	NA		432 026.5	7 299 623.1	432 710.5	7 299 252.6	777.9
18/09/2021	03:40	ABP21308_TR21	Still	ABP21308-TR21-108	NA		432 026.5	7 299 623.1	432 722.2	7 299 248.6	790.1
18/09/2021	03:40	ABP21308_TR21	Still	ABP21308-TR21-109	NA		432 026.5	7 299 623.1	432 737.9	7 299 243.2	806.5
18/09/2021	03:41	ABP21308_TR21	Still	ABP21308-TR21-110	NA		432 026.5	7 299 623.1	432 741.9	7 299 241.9	810.6
18/09/2021	03:41	ABP21308_TR21	Still	ABP21308-TR21-111	NA		432 026.5	7 299 623.1	432 744.2	7 299 240.2	813.5
18/09/2021	03:41	ABP21308_TR21	Still	ABP21308-TR21-112	NA		432 026.5	7 299 623.1	432 746.6	7 299 239.1	816.1
18/09/2021	03:41	ABP21308_TR21	Still	ABP21308-TR21-113	NA		432 026.5	7 299 623.1	432 751.2	7 299 238.0	820.7
18/09/2021	03:41	ABP21308_TR21	Still	ABP21308-TR21-114	NA		432 026.5	7 299 623.1	432 759.2	7 299 235.5	828.9
18/09/2021	03:42	ABP21308_TR21	Still	ABP21308-TR21-115	NA		432 026.5	7 299 623.1	432 772.0	7 299 221.9	846.6
18/09/2021	03:42	ABP21308_TR21	Still	ABP21308-TR21-116	NA		432 026.5	7 299 623.1	432 772.6	7 299 221.4	847.4
18/09/2021	03:42	ABP21308_TR21	Still	ABP21308-TR21-117	NA		432 026.5	7 299 623.1	432 773.5	7 299 221.6	848.1
18/09/2021	03:42	ABP21308_TR21	Still	ABP21308-TR21-118	NA		432 026.5	7 299 623.1	432 774.7	7 299 221.3	849.3
18/09/2021	03:42	ABP21308_TR21	Still	ABP21308-TR21-119	NA		432 026.5	7 299 623.1	432 775.4	7 299 220.0	850.5
18/09/2021	03:43	ABP21308_TR21	Still	ABP21308-TR21-120	NA		432 026.5	7 299 623.1	432 785.4	7 299 215.1	861.6
18/09/2021	03:43	ABP21308_TR21	Still	ABP21308-TR21-121	NA		432 026.5	7 299 623.1	432 788.0	7 299 213.0	864.9
18/09/2021	03:43	ABP21308_TR21	Still	ABP21308-TR21-122	NA		432 026.5	7 299 623.1	432 790.3	7 299 207.5	869.5
18/09/2021	03:43	ABP21308_TR21	Still	ABP21308-TR21-123	NA		432 026.5	7 299 623.1	432 793.9	7 299 203.8	874.5
18/09/2021	03:44	ABP21308_TR21	Still	ABP21308-TR21-124	NA		432 026.5	7 299 623.1	432 794.0	7 299 202.6	875.1
18/09/2021	03:44	ABP21308_TR21	Still	ABP21308-TR21-125	NA		432 026.5	7 299 623.1	432 797.2	7 299 199.8	879.3
18/09/2021	03:45	ABP21308_TR21	Still	ABP21308-TR21-126	NA		432 026.5	7 299 623.1	432 805.9	7 299 195.1	889.2

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:45	ABP21308_TR21	Still	ABP21308-TR21-127	NA		432 026.5	7 299 623.1	432 810.6	7 299 192.2	894.7
18/09/2021	03:46	ABP21308_TR21	Still	ABP21308-TR21-128	NA		432 026.5	7 299 623.1	432 826.6	7 299 182.7	913.3
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-129	NA		432 026.5	7 299 623.1	432 854.0	7 299 170.3	943.3
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-130	NA		432 026.5	7 299 623.1	432 855.8	7 299 169.9	945.1
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-131	NA		432 026.5	7 299 623.1	432 857.1	7 299 168.8	946.7
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-132	NA		432 026.5	7 299 623.1	432 859.4	7 299 167.3	949.5
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-133	NA		432 026.5	7 299 623.1	432 863.7	7 299 165.7	954.0
18/09/2021	03:47	ABP21308_TR21	Still	ABP21308-TR21-134	NA		432 026.5	7 299 623.1	432 872.3	7 299 159.7	964.4
18/09/2021	03:48	ABP21308_TR21	Still	ABP21308-TR21-135	NA		432 026.5	7 299 623.1	432 873.2	7 299 158.2	965.9
18/09/2021	03:48	ABP21308_TR21	Still	ABP21308-TR21-136	NA		432 026.5	7 299 623.1	432 875.7	7 299 157.4	968.5
18/09/2021	03:48	ABP21308_TR21	Still	ABP21308-TR21-137	NA		432 026.5	7 299 623.1	432 880.4	7 299 153.6	974.5
18/09/2021	03:48	ABP21308_TR21	Still	ABP21308-TR21-138	NA		432 026.5	7 299 623.1	432 882.7	7 299 151.7	977.4
18/09/2021	03:49	ABP21308_TR21	Still	ABP21308-TR21-139	NA		432 026.5	7 299 623.1	432 912.9	7 299 141.9	1008.6
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-140	NA		432 026.5	7 299 623.1	432 927.0	7 299 137.2	1023.2
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-141	NA		432 026.5	7 299 623.1	432 927.9	7 299 136.7	1024.3
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-142	NA		432 026.5	7 299 623.1	432 935.9	7 299 133.3	1032.9
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-143	NA		432 026.5	7 299 623.1	432 937.7	7 299 132.8	1034.7
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-144	NA		432 026.5	7 299 623.1	432 941.5	7 299 131.6	1038.7
18/09/2021	03:50	ABP21308_TR21	Still	ABP21308-TR21-145	NA		432 026.5	7 299 623.1	432 946.6	7 299 129.0	1044.4
18/09/2021	03:54	ABP21308_TR21	Still	ABP21308-TR21-146	NA		432 026.5	7 299 623.1	433 022.6	7 299 083.7	1132.8
18/09/2021	03:54	ABP21308_TR21	Still	ABP21308-TR21-147	NA		432 026.5	7 299 623.1	433 023.4	7 299 083.8	1133.4
18/09/2021	03:55	ABP21308_TR21	Still	ABP21308-TR21-148	NA		432 026.5	7 299 623.1	433 035.0	7 299 077.0	1146.9
18/09/2021	03:55	ABP21308_TR21	Still	ABP21308-TR21-149	NA		432 026.5	7 299 623.1	433 041.1	7 299 073.3	1154.0
18/09/2021	03:56	ABP21308_TR21	Still	ABP21308-TR21-150	NA		432 026.5	7 299 623.1	433 079.4	7 299 050.9	1198.3
18/09/2021	03:57	ABP21308_TR21	Still	ABP21308-TR21-151	NA		432 026.5	7 299 623.1	433 083.1	7 299 047.9	1203.0
18/09/2021	03:57	ABP21308_TR21	Still	ABP21308-TR21-152	NA		432 026.5	7 299 623.1	433 083.7	7 299 048.0	1203.5
18/09/2021	03:57	ABP21308_TR21	Still	ABP21308-TR21-153	NA		432 026.5	7 299 623.1	433 084.3	7 299 048.0	1204.0
18/09/2021	03:58	ABP21308_TR21	Still	ABP21308-TR21-154	NA		432 026.5	7 299 623.1	433 100.7	7 299 021.9	1231.0

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	03:58	ABP21308_TR21	Still	ABP21308-TR21-155	NA		432 026.5	7 299 623.1	433 103.6	7 299 017.3	1235.8
18/09/2021	03:58	ABP21308_TR21	Still	ABP21308-TR21-156	NA		432 026.5	7 299 623.1	433 104.7	7 299 017.5	1236.6
18/09/2021	03:58	ABP21308_TR21	Still	ABP21308-TR21-157	NA		432 026.5	7 299 623.1	433 107.3	7 299 017.7	1238.8
18/09/2021	03:59	ABP21308_TR21	Still	ABP21308-TR21-158	NA		432 026.5	7 299 623.1	433 116.9	7 299 017.4	1247.3
18/09/2021	03:59	ABP21308_TR21	Still	ABP21308-TR21-159	NA		432 026.5	7 299 623.1	433 121.1	7 299 013.0	1253.1
18/09/2021	03:59	ABP21308_TR21	Still	ABP21308-TR21-160	NA		432 026.5	7 299 623.1	433 122.0	7 299 011.8	1254.5
18/09/2021	04:00	ABP21308_TR21	Still	ABP21308-TR21-161	NA		432 026.5	7 299 623.1	433 143.8	7 298 982.0	1288.2
18/09/2021	04:00	ABP21308_TR21	Still	ABP21308-TR21-162	NA		432 026.5	7 299 623.1	433 145.1	7 298 978.6	1291.0
18/09/2021	04:00	ABP21308_TR21	Still	ABP21308-TR21-163	NA		432 026.5	7 299 623.1	433 147.0	7 298 977.3	1293.3
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-164	NA		432 026.5	7 299 623.1	433 151.3	7 298 972.4	1299.5
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-165	NA		432 026.5	7 299 623.1	433 156.5	7 298 970.7	1304.8
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-166	NA		432 026.5	7 299 623.1	433 158.7	7 298 969.5	1307.3
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-167	NA		432 026.5	7 299 623.1	433 161.9	7 298 967.2	1311.2
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-168	NA		432 026.5	7 299 623.1	433 165.2	7 298 967.5	1313.9
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-169	NA		432 026.5	7 299 623.1	433 163.3	7 298 967.5	1312.3
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-170	NA		432 026.5	7 299 623.1	433 162.1	7 298 966.7	1311.7
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-171	NA		432 026.5	7 299 623.1	433 162.3	7 298 967.0	1311.7
18/09/2021	04:01	ABP21308_TR21	Still	ABP21308-TR21-172	NA		432 026.5	7 299 623.1	433 168.6	7 298 964.8	1318.2
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-173	NA		432 026.5	7 299 623.1	433 171.3	7 298 963.7	1321.1
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-174	NA		432 026.5	7 299 623.1	433 172.7	7 298 964.1	1322.1
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-175	NA		432 026.5	7 299 623.1	433 173.1	7 298 964.3	1322.4
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-176	NA		432 026.5	7 299 623.1	433 173.8	7 298 964.4	1322.9
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-177	NA		432 026.5	7 299 623.1	433 174.2	7 298 964.5	1323.2
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-178	NA		432 026.5	7 299 623.1	433 175.2	7 298 964.8	1324.0
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-179	NA		432 026.5	7 299 623.1	433 176.2	7 298 964.8	1324.8
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-180	NA		432 026.5	7 299 623.1	433 181.7	7 298 962.1	1330.9
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-181	NA		432 026.5	7 299 623.1	433 181.7	7 298 961.6	1331.2
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-182	NA		432 026.5	7 299 623.1	433 184.7	7 298 957.3	1335.9

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-183	NA		432 026.5	7 299 623.1	433 185.8	7 298 956.4	1337.3
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-184	NA		432 026.5	7 299 623.1	433 186.6	7 298 954.9	1338.8
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-185	NA		432 026.5	7 299 623.1	433 187.0	7 298 954.8	1339.2
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-186	NA		432 026.5	7 299 623.1	433 188.1	7 298 953.9	1340.6
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-187	NA		432 026.5	7 299 623.1	433 189.3	7 298 953.2	1342.0
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-188	NA		432 026.5	7 299 623.1	433 190.1	7 298 951.3	1343.6
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-189	NA		432 026.5	7 299 623.1	433 190.9	7 298 950.1	1344.9
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-190	NA		432 026.5	7 299 623.1	433 191.2	7 298 949.6	1345.4
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-191	NA		432 026.5	7 299 623.1	433 191.9	7 298 948.3	1346.7
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-192	NA		432 026.5	7 299 623.1	433 192.7	7 298 947.2	1347.9
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-193	NA		432 026.5	7 299 623.1	433 193.3	7 298 947.0	1348.5
18/09/2021	04:02	ABP21308_TR21	Still	ABP21308-TR21-194	NA		432 026.5	7 299 623.1	433 194.1	7 298 946.4	1349.5
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-195	NA		432 026.5	7 299 623.1	433 195.2	7 298 944.7	1351.3
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-196	NA		432 026.5	7 299 623.1	433 196.5	7 298 944.1	1352.8
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-197	NA		432 026.5	7 299 623.1	433 199.8	7 298 944.4	1355.5
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-198	NA		432 026.5	7 299 623.1	433 201.2	7 298 945.4	1356.2
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-199	NA		432 026.5	7 299 623.1	433 208.3	7 298 947.7	1361.2
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-200	NA		432 026.5	7 299 623.1	433 212.4	7 298 949.1	1364.1
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-201	NA		432 026.5	7 299 623.1	433 217.4	7 298 950.7	1367.6
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-202	NA		432 026.5	7 299 623.1	433 221.7	7 298 953.2	1370.1
18/09/2021	04:03	ABP21308_TR21	Still	ABP21308-TR21-203	NA		432 026.5	7 299 623.1	433 226.5	7 298 953.6	1374.1
18/09/2021	04:04	ABP21308_TR21	Still	ABP21308-TR21-204	NA		432 026.5	7 299 623.1	433 227.3	7 298 953.1	1375.1
18/09/2021	04:04	ABP21308_TR21	Still	ABP21308-TR21-205	NA		432 026.5	7 299 623.1	433 233.2	7 298 952.3	1380.6
18/09/2021	04:04	ABP21308_TR21	Still	ABP21308-TR21-206	NA		432 026.5	7 299 623.1	433 239.8	7 298 953.4	1385.9
18/09/2021	04:04	ABP21308_TR21	Still	ABP21308-TR21-207	NA		432 026.5	7 299 623.1	433 244.5	7 298 954.2	1389.6
18/09/2021	04:05	ABP21308_TR21	Still	ABP21308-TR21-208	NA		432 026.5	7 299 623.1	433 281.2	7 298 941.8	1427.7
18/09/2021	04:06	ABP21308_TR21	Still	ABP21308-TR21-209	NA		432 026.5	7 299 623.1	433 299.3	7 298 933.7	1447.5
18/09/2021	04:07	ABP21308_TR21	Still	ABP21308-TR21-210	NA		432 026.5	7 299 623.1	433 312.8	7 298 926.9	1462.6

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	04:07	ABP21308_TR21	Still	ABP21308-TR21-211	NA		432 026.5	7 299 623.1	433 325.0	7 298 921.6	1475.9
18/09/2021	04:08	ABP21308_TR21	Still	ABP21308-TR21-212	NA		432 026.5	7 299 623.1	433 346.9	7 298 906.8	1502.2
18/09/2021	04:09	ABP21308_TR21	Still	ABP21308-TR21-213	NA		432 026.5	7 299 623.1	433 367.3	7 298 892.5	1526.9
18/09/2021	04:09	ABP21308_TR21	Still	ABP21308-TR21-214	NA		432 026.5	7 299 623.1	433 378.8	7 298 885.8	1540.2
18/09/2021	04:10	ABP21308_TR21	Still	ABP21308-TR21-215	NA		432 026.5	7 299 623.1	433 380.5	7 298 885.3	1542.0
18/09/2021	04:10	ABP21308_TR21	Still	ABP21308-TR21-216	NA		432 026.5	7 299 623.1	433 384.2	7 298 883.1	1546.3
18/09/2021	04:10	ABP21308_TR21	Still	ABP21308-TR21-217	NA		432 026.5	7 299 623.1	433 399.5	7 298 875.2	1563.5
18/09/2021	04:10	ABP21308_TR21	Still	ABP21308-TR21-218	NA		432 026.5	7 299 623.1	433 402.5	7 298 873.2	1567.1
18/09/2021	04:12	ABP21308_TR21	Still	ABP21308-TR21-219	NA		432 026.5	7 299 623.1	433 432.1	7 298 857.8	1600.4
18/09/2021	04:13	ABP21308_TR21	Still	ABP21308-TR21-220	NA		432 026.5	7 299 623.1	433 457.1	7 298 845.2	1628.4
18/09/2021	04:13	ABP21308_TR21	Still	ABP21308-TR21-221	NA		432 026.5	7 299 623.1	433 474.9	7 298 835.7	1648.6
18/09/2021	04:14	ABP21308_TR21	Still	ABP21308-TR21-222	NA		432 026.5	7 299 623.1	433 492.5	7 298 826.1	1668.6
18/09/2021	04:15	ABP21308_TR21	Still	ABP21308-TR21-223	NA		432 026.5	7 299 623.1	433 505.3	7 298 819.7	1682.9
18/09/2021	04:16	ABP21308_TR21	Still	ABP21308-TR21-224	NA		432 026.5	7 299 623.1	433 542.0	7 298 817.9	1716.1
18/09/2021	04:16	ABP21308_TR21	Still	ABP21308-TR21-225	NA		432 026.5	7 299 623.1	433 546.7	7 298 818.1	1720.2
18/09/2021	04:16	ABP21308_TR21	Still	ABP21308-TR21-226	NA		432 026.5	7 299 623.1	433 557.1	7 298 818.0	1729.4
18/09/2021	04:18	ABP21308_TR21	Still	ABP21308-TR21-227	NA		432 026.5	7 299 623.1	433 600.2	7 298 775.4	1787.5
18/09/2021	04:19	ABP21308_TR21	Still	ABP21308-TR21-228	NA		432 026.5	7 299 623.1	433 611.1	7 298 764.6	1802.2
18/09/2021	04:20	ABP21308_TR21	Still	ABP21308-TR21-229	NA		432 026.5	7 299 623.1	433 621.1	7 298 759.3	1813.5
18/09/2021	04:20	ABP21308_TR21	Still	ABP21308-TR21-230	NA		432 026.5	7 299 623.1	433 645.4	7 298 745.2	1841.6
18/09/2021	04:20	ABP21308_TR21	Still	ABP21308-TR21-231	NA		432 026.5	7 299 623.1	433 647.2	7 298 744.2	1843.7
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-232	NA		432 026.5	7 299 623.1	433 645.6	7 298 745.2	1841.8
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-233	NA		432 026.5	7 299 623.1	433 645.7	7 298 745.7	1841.6
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-234	NA		432 026.5	7 299 623.1	433 645.5	7 298 745.2	1841.7
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-235	NA		432 026.5	7 299 623.1	433 645.1	7 298 744.9	1841.5
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-236	NA		432 026.5	7 299 623.1	433 644.8	7 298 743.8	1841.8
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-237	NA		432 026.5	7 299 623.1	433 644.2	7 298 743.4	1841.4
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-238	NA		432 026.5	7 299 623.1	433 643.7	7 298 742.4	1841.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-239	NA		432 026.5	7 299 623.1	433 643.4	7 298 741.5	1841.6
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-240	NA		432 026.5	7 299 623.1	433 643.3	7 298 740.6	1842.0
18/09/2021	04:21	ABP21308_TR21	Still	ABP21308-TR21-241	NA		432 026.5	7 299 623.1	433 656.5	7 298 736.6	1855.5
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-242	NA		432 026.5	7 299 623.1	433 664.8	7 298 733.8	1864.1
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-243	NA		432 026.5	7 299 623.1	433 669.9	7 298 731.3	1869.8
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-244	NA		432 026.5	7 299 623.1	433 673.0	7 298 730.5	1872.9
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-245	NA		432 026.5	7 299 623.1	433 677.8	7 298 728.2	1878.2
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-246	NA		432 026.5	7 299 623.1	433 681.2	7 298 726.7	1881.9
18/09/2021	04:22	ABP21308_TR21	Still	ABP21308-TR21-247	NA		432 026.5	7 299 623.1	433 685.1	7 298 724.7	1886.3
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-248	NA		432 026.5	7 299 623.1	433 723.7	7 298 706.8	1928.8
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-249	NA		432 026.5	7 299 623.1	433 723.8	7 298 705.9	1929.3
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-250	NA		432 026.5	7 299 623.1	433 728.2	7 298 703.1	1934.5
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-251	NA		432 026.5	7 299 623.1	433 733.3	7 298 700.4	1940.2
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-252	NA		432 026.5	7 299 623.1	433 734.8	7 298 700.2	1941.7
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-253	NA		432 026.5	7 299 623.1	433 740.0	7 298 697.9	1947.3
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-254	NA		432 026.5	7 299 623.1	433 742.6	7 298 696.7	1950.2
18/09/2021	04:24	ABP21308_TR21	Still	ABP21308-TR21-255	NA		432 026.5	7 299 623.1	433 745.4	7 298 695.5	1953.2
18/09/2021	04:26	ABP21308_TR21	Still	ABP21308-TR21-256	NA		432 026.5	7 299 623.1	433 794.4	7 298 671.1	2007.9
18/09/2021	04:27	ABP21308_TR21	Still	ABP21308-TR21-257	NA		432 026.5	7 299 623.1	433 795.3	7 298 671.0	2008.8
18/09/2021	04:27	ABP21308_TR21	Video	EOL	34	335.7	432 026.5	7 299 623.1	433 795.0	7 298 670.9	2008.6
18/09/2021	00:28	ABP21308_TR22	Video	SOL	31	330.5	434 236.2	7 299 094.7	434 236.2	7 299 094.7	0.0
18/09/2021	00:28	ABP21308_TR22	Still	ABP21308-TR22-001	NA		434 236.2	7 299 094.7	434 236.7	7 299 095.0	0.6
18/09/2021	00:30	ABP21308_TR22	Still	ABP21308-TR22-002	NA		434 236.2	7 299 094.7	434 216.1	7 299 131.1	41.6
18/09/2021	00:31	ABP21308_TR22	Still	ABP21308-TR22-003	NA		434 236.2	7 299 094.7	434 215.4	7 299 139.2	49.1
18/09/2021	00:31	ABP21308_TR22	Still	ABP21308-TR22-004	NA		434 236.2	7 299 094.7	434 215.1	7 299 147.1	56.5
18/09/2021	00:31	ABP21308_TR22	Still	ABP21308-TR22-005	NA		434 236.2	7 299 094.7	434 215.7	7 299 148.4	57.5
18/09/2021	00:33	ABP21308_TR22	Still	ABP21308-TR22-006	NA		434 236.2	7 299 094.7	434 209.9	7 299 176.8	86.2
18/09/2021	00:33	ABP21308_TR22	Still	ABP21308-TR22-007	NA		434 236.2	7 299 094.7	434 209.7	7 299 176.8	86.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	00:35	ABP21308_TR22	Still	ABP21308-TR22-008	NA		434 236.2	7 299 094.7	434 186.2	7 299 198.5	115.2
18/09/2021	00:37	ABP21308_TR22	Still	ABP21308-TR22-009	NA		434 236.2	7 299 094.7	434 174.2	7 299 222.1	141.7
18/09/2021	00:37	ABP21308_TR22	Still	ABP21308-TR22-010	NA		434 236.2	7 299 094.7	434 170.3	7 299 230.5	150.9
18/09/2021	00:38	ABP21308_TR22	Still	ABP21308-TR22-011	NA		434 236.2	7 299 094.7	434 165.2	7 299 240.2	161.9
18/09/2021	00:38	ABP21308_TR22	Still	ABP21308-TR22-012	NA		434 236.2	7 299 094.7	434 162.4	7 299 246.2	168.5
18/09/2021	00:38	ABP21308_TR22	Still	ABP21308-TR22-013	NA		434 236.2	7 299 094.7	434 161.7	7 299 249.1	171.4
18/09/2021	00:39	ABP21308_TR22	Still	ABP21308-TR22-014	NA		434 236.2	7 299 094.7	434 150.6	7 299 273.3	198.1
18/09/2021	00:40	ABP21308_TR22	Still	ABP21308-TR22-015	NA		434 236.2	7 299 094.7	434 144.5	7 299 286.3	212.4
18/09/2021	00:41	ABP21308_TR22	Still	ABP21308-TR22-016	NA		434 236.2	7 299 094.7	434 134.3	7 299 306.1	234.7
18/09/2021	00:42	ABP21308_TR22	Still	ABP21308-TR22-017	NA		434 236.2	7 299 094.7	434 121.6	7 299 329.3	261.1
18/09/2021	00:44	ABP21308_TR22	Still	ABP21308-TR22-018	NA		434 236.2	7 299 094.7	434 099.2	7 299 378.4	315.0
18/09/2021	00:47	ABP21308_TR22	Still	ABP21308-TR22-019	NA		434 236.2	7 299 094.7	434 080.9	7 299 438.1	376.9
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-020	NA		434 236.2	7 299 094.7	434 054.5	7 299 470.1	417.1
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-021	NA		434 236.2	7 299 094.7	434 053.3	7 299 471.1	418.5
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-022	NA		434 236.2	7 299 094.7	434 052.3	7 299 472.9	420.5
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-023	NA		434 236.2	7 299 094.7	434 051.9	7 299 477.8	425.1
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-024	NA		434 236.2	7 299 094.7	434 051.3	7 299 480.3	427.6
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-025	NA		434 236.2	7 299 094.7	434 051.3	7 299 482.2	429.4
18/09/2021	00:49	ABP21308_TR22	Still	ABP21308-TR22-026	NA		434 236.2	7 299 094.7	434 051.5	7 299 486.5	433.2
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-027	NA		434 236.2	7 299 094.7	434 049.3	7 299 494.8	441.6
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-028	NA		434 236.2	7 299 094.7	434 049.4	7 299 497.1	443.6
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-029	NA		434 236.2	7 299 094.7	434 048.9	7 299 498.8	445.4
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-030	NA		434 236.2	7 299 094.7	434 049.4	7 299 501.3	447.5
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-031	NA		434 236.2	7 299 094.7	434 050.2	7 299 505.0	450.5
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-032	NA		434 236.2	7 299 094.7	434 050.5	7 299 509.0	454.0
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-033	NA		434 236.2	7 299 094.7	434 050.4	7 299 511.9	456.7
18/09/2021	00:50	ABP21308_TR22	Still	ABP21308-TR22-034	NA		434 236.2	7 299 094.7	434 051.0	7 299 514.8	459.1
18/09/2021	00:51	ABP21308_TR22	Still	ABP21308-TR22-035	NA		434 236.2	7 299 094.7	434 057.5	7 299 518.3	459.8

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	00:51	ABP21308_TR22	Still	ABP21308-TR22-036	NA		434 236.2	7 299 094.7	434 051.8	7 299 532.9	475.4
18/09/2021	00:52	ABP21308_TR22	Still	ABP21308-TR22-037	NA		434 236.2	7 299 094.7	434 026.8	7 299 531.5	484.4
18/09/2021	00:52	ABP21308_TR22	Still	ABP21308-TR22-038	NA		434 236.2	7 299 094.7	434 025.0	7 299 531.7	485.4
18/09/2021	00:53	ABP21308_TR22	Still	ABP21308-TR22-039	NA		434 236.2	7 299 094.7	434 021.1	7 299 536.6	491.5
18/09/2021	00:53	ABP21308_TR22	Still	ABP21308-TR22-040	NA		434 236.2	7 299 094.7	434 019.0	7 299 541.4	496.7
18/09/2021	00:53	ABP21308_TR22	Still	ABP21308-TR22-041	NA		434 236.2	7 299 094.7	434 019.1	7 299 543.3	498.4
18/09/2021	00:53	ABP21308_TR22	Still	ABP21308-TR22-042	NA		434 236.2	7 299 094.7	434 018.2	7 299 548.1	503.1
18/09/2021	00:54	ABP21308_TR22	Still	ABP21308-TR22-043	NA		434 236.2	7 299 094.7	434 011.1	7 299 565.8	522.1
18/09/2021	00:54	ABP21308_TR22	Still	ABP21308-TR22-044	NA		434 236.2	7 299 094.7	434 007.1	7 299 573.2	530.5
18/09/2021	00:55	ABP21308_TR22	Still	ABP21308-TR22-045	NA		434 236.2	7 299 094.7	434 001.7	7 299 587.4	545.7
18/09/2021	00:55	ABP21308_TR22	Still	ABP21308-TR22-046	NA		434 236.2	7 299 094.7	434 000.5	7 299 590.1	548.6
18/09/2021	00:56	ABP21308_TR22	Still	ABP21308-TR22-047	NA		434 236.2	7 299 094.7	433 994.6	7 299 599.3	559.5
18/09/2021	00:56	ABP21308_TR22	Still	ABP21308-TR22-048	NA		434 236.2	7 299 094.7	433 991.7	7 299 605.0	565.9
18/09/2021	00:56	ABP21308_TR22	Still	ABP21308-TR22-049	NA		434 236.2	7 299 094.7	433 990.9	7 299 607.6	568.5
18/09/2021	00:56	ABP21308_TR22	Still	ABP21308-TR22-050	NA		434 236.2	7 299 094.7	433 988.9	7 299 611.6	573.0
18/09/2021	00:56	ABP21308_TR22	Still	ABP21308-TR22-051	NA		434 236.2	7 299 094.7	433 987.7	7 299 613.8	575.5
18/09/2021	00:57	ABP21308_TR22	Still	ABP21308-TR22-052	NA		434 236.2	7 299 094.7	433 986.2	7 299 617.4	579.4
18/09/2021	00:57	ABP21308_TR22	Still	ABP21308-TR22-053	NA		434 236.2	7 299 094.7	433 976.2	7 299 637.8	602.1
18/09/2021	00:58	ABP21308_TR22	Still	ABP21308-TR22-054	NA		434 236.2	7 299 094.7	433 972.3	7 299 644.9	610.2
18/09/2021	00:58	ABP21308_TR22	Still	ABP21308-TR22-055	NA		434 236.2	7 299 094.7	433 971.1	7 299 648.8	614.3
18/09/2021	00:59	ABP21308_TR22	Still	ABP21308-TR22-056	NA		434 236.2	7 299 094.7	433 963.4	7 299 665.3	632.5
18/09/2021	00:59	ABP21308_TR22	Still	ABP21308-TR22-057	NA		434 236.2	7 299 094.7	433 956.6	7 299 678.0	646.9
18/09/2021	01:00	ABP21308_TR22	Still	ABP21308-TR22-058	NA		434 236.2	7 299 094.7	433 950.8	7 299 689.1	659.4
18/09/2021	01:01	ABP21308_TR22	Still	ABP21308-TR22-059	NA		434 236.2	7 299 094.7	433 946.0	7 299 702.3	673.3
18/09/2021	01:01	ABP21308_TR22	Still	ABP21308-TR22-060	NA		434 236.2	7 299 094.7	433 936.7	7 299 719.9	693.2
18/09/2021	01:01	ABP21308_TR22	Still	ABP21308-TR22-061	NA		434 236.2	7 299 094.7	433 936.4	7 299 720.6	694.0
18/09/2021	01:02	ABP21308_TR22	Still	ABP21308-TR22-062	NA		434 236.2	7 299 094.7	433 934.1	7 299 725.3	699.2
18/09/2021	01:02	ABP21308_TR22	Still	ABP21308-TR22-063	NA		434 236.2	7 299 094.7	433 931.6	7 299 731.7	706.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	01:02	ABP21308_TR22	Still	ABP21308-TR22-064	NA		434 236.2	7 299 094.7	433 930.1	7 299 734.4	709.2
18/09/2021	01:03	ABP21308_TR22	Still	ABP21308-TR22-065	NA		434 236.2	7 299 094.7	433 921.9	7 299 750.5	727.2
18/09/2021	01:04	ABP21308_TR22	Still	ABP21308-TR22-066	NA		434 236.2	7 299 094.7	433 918.8	7 299 758.7	736.0
18/09/2021	01:04	ABP21308_TR22	Still	ABP21308-TR22-067	NA		434 236.2	7 299 094.7	433 907.8	7 299 780.0	759.9
18/09/2021	01:06	ABP21308_TR22	Still	ABP21308-TR22-068	NA		434 236.2	7 299 094.7	433 884.9	7 299 827.1	812.3
18/09/2021	01:06	ABP21308_TR22	Still	ABP21308-TR22-069	NA		434 236.2	7 299 094.7	433 884.5	7 299 828.3	813.5
18/09/2021	01:06	ABP21308_TR22	Still	ABP21308-TR22-070	NA		434 236.2	7 299 094.7	433 883.3	7 299 829.2	814.9
18/09/2021	01:07	ABP21308_TR22	Still	ABP21308-TR22-071	NA		434 236.2	7 299 094.7	433 879.9	7 299 833.5	820.2
18/09/2021	01:07	ABP21308_TR22	Still	ABP21308-TR22-072	NA		434 236.2	7 299 094.7	433 877.8	7 299 834.5	822.0
18/09/2021	01:07	ABP21308_TR22	Still	ABP21308-TR22-073	NA		434 236.2	7 299 094.7	433 877.1	7 299 835.0	822.8
18/09/2021	01:08	ABP21308_TR22	Still	ABP21308-TR22-074	NA		434 236.2	7 299 094.7	433 843.6	7 299 839.1	841.6
18/09/2021	01:08	ABP21308_TR22	Still	ABP21308-TR22-075	NA		434 236.2	7 299 094.7	433 839.1	7 299 840.5	844.9
18/09/2021	01:10	ABP21308_TR22	Still	ABP21308-TR22-076	NA		434 236.2	7 299 094.7	433 857.1	7 299 887.0	878.3
18/09/2021	01:11	ABP21308_TR22	Still	ABP21308-TR22-077	NA		434 236.2	7 299 094.7	433 853.2	7 299 891.3	883.9
18/09/2021	01:11	ABP21308_TR22	Still	ABP21308-TR22-078	NA		434 236.2	7 299 094.7	433 852.3	7 299 894.1	886.8
18/09/2021	01:11	ABP21308_TR22	Still	ABP21308-TR22-079	NA		434 236.2	7 299 094.7	433 849.8	7 299 895.9	889.5
18/09/2021	01:12	ABP21308_TR22	Still	ABP21308-TR22-080	NA		434 236.2	7 299 094.7	433 837.8	7 299 915.1	912.0
18/09/2021	01:13	ABP21308_TR22	Still	ABP21308-TR22-081	NA		434 236.2	7 299 094.7	433 812.8	7 299 914.6	922.8
18/09/2021	01:13	ABP21308_TR22	Still	ABP21308-TR22-082	NA		434 236.2	7 299 094.7	433 804.9	7 299 918.3	929.7
18/09/2021	01:14	ABP21308_TR22	Still	ABP21308-TR22-083	NA		434 236.2	7 299 094.7	433 796.9	7 299 928.6	942.5
18/09/2021	01:14	ABP21308_TR22	Still	ABP21308-TR22-084	NA		434 236.2	7 299 094.7	433 794.7	7 299 933.6	948.0
18/09/2021	01:15	ABP21308_TR22	Still	ABP21308-TR22-085	NA		434 236.2	7 299 094.7	433 786.3	7 299 955.9	971.6
18/09/2021	01:16	ABP21308_TR22	Still	ABP21308-TR22-086	NA		434 236.2	7 299 094.7	433 791.6	7 299 970.3	982.0
18/09/2021	01:16	ABP21308_TR22	Still	ABP21308-TR22-087	NA		434 236.2	7 299 094.7	433 793.7	7 299 973.3	983.7
18/09/2021	01:16	ABP21308_TR22	Still	ABP21308-TR22-088	NA		434 236.2	7 299 094.7	433 794.8	7 299 975.6	985.3
18/09/2021	01:18	ABP21308_TR22	Still	ABP21308-TR22-089	NA		434 236.2	7 299 094.7	433 796.5	7 300 014.9	1019.9
18/09/2021	01:18	ABP21308_TR22	Still	ABP21308-TR22-090	NA		434 236.2	7 299 094.7	433 794.5	7 300 016.9	1022.5
18/09/2021	01:18	ABP21308_TR22	Still	ABP21308-TR22-091	NA		434 236.2	7 299 094.7	433 793.4	7 300 019.4	1025.3

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	01:18	ABP21308_TR22	Still	ABP21308-TR22-092	NA		434 236.2	7 299 094.7	433 791.0	7 300 023.2	1029.7
18/09/2021	01:19	ABP21308_TR22	Still	ABP21308-TR22-093	NA		434 236.2	7 299 094.7	433 787.6	7 300 032.1	1039.2
18/09/2021	01:19	ABP21308_TR22	Still	ABP21308-TR22-094	NA		434 236.2	7 299 094.7	433 782.8	7 300 042.7	1050.8
18/09/2021	01:19	ABP21308_TR22	Still	ABP21308-TR22-095	NA		434 236.2	7 299 094.7	433 781.6	7 300 044.9	1053.3
18/09/2021	01:20	ABP21308_TR22	Still	ABP21308-TR22-096	NA		434 236.2	7 299 094.7	433 780.0	7 300 046.9	1055.8
18/09/2021	01:21	ABP21308_TR22	Still	ABP21308-TR22-097	NA		434 236.2	7 299 094.7	433 765.4	7 300 077.5	1089.7
18/09/2021	01:22	ABP21308_TR22	Still	ABP21308-TR22-098	NA		434 236.2	7 299 094.7	433 757.7	7 300 091.0	1105.2
18/09/2021	01:23	ABP21308_TR22	Still	ABP21308-TR22-099	NA		434 236.2	7 299 094.7	433 745.1	7 300 118.6	1135.6
18/09/2021	01:24	ABP21308_TR22	Still	ABP21308-TR22-100	NA		434 236.2	7 299 094.7	433 743.5	7 300 121.9	1139.3
18/09/2021	01:25	ABP21308_TR22	Still	ABP21308-TR22-101	NA		434 236.2	7 299 094.7	433 725.5	7 300 158.6	1180.1
18/09/2021	01:26	ABP21308_TR22	Still	ABP21308-TR22-102	NA		434 236.2	7 299 094.7	433 721.1	7 300 168.4	1190.9
18/09/2021	01:26	ABP21308_TR22	Still	ABP21308-TR22-103	NA		434 236.2	7 299 094.7	433 719.4	7 300 172.4	1195.2
18/09/2021	01:27	ABP21308_TR22	Still	ABP21308-TR22-104	NA		434 236.2	7 299 094.7	433 710.2	7 300 188.4	1213.6
18/09/2021	01:28	ABP21308_TR22	Still	ABP21308-TR22-105	NA		434 236.2	7 299 094.7	433 698.0	7 300 217.3	1244.9
18/09/2021	01:28	ABP21308_TR22	Still	ABP21308-TR22-106	NA		434 236.2	7 299 094.7	433 697.4	7 300 219.7	1247.4
18/09/2021	01:30	ABP21308_TR22	Still	ABP21308-TR22-107	NA		434 236.2	7 299 094.7	433 681.8	7 300 251.0	1282.3
18/09/2021	01:31	ABP21308_TR22	Still	ABP21308-TR22-108	NA		434 236.2	7 299 094.7	433 664.6	7 300 287.4	1322.6
18/09/2021	01:33	ABP21308_TR22	Still	ABP21308-TR22-109	NA		434 236.2	7 299 094.7	433 649.0	7 300 315.6	1354.8
18/09/2021	01:34	ABP21308_TR22	Still	ABP21308-TR22-110	NA		434 236.2	7 299 094.7	433 643.4	7 300 328.5	1368.8
18/09/2021	01:37	ABP21308_TR22	Still	ABP21308-TR22-111	NA		434 236.2	7 299 094.7	433 610.1	7 300 393.6	1441.9
18/09/2021	01:40	ABP21308_TR22	Still	ABP21308-TR22-112	NA		434 236.2	7 299 094.7	433 584.5	7 300 450.2	1504.0
18/09/2021	01:40	ABP21308_TR22	Still	ABP21308-TR22-113	NA		434 236.2	7 299 094.7	433 583.4	7 300 450.6	1504.9
18/09/2021	01:40	ABP21308_TR22	Still	ABP21308-TR22-114	NA		434 236.2	7 299 094.7	433 581.7	7 300 455.5	1510.0
18/09/2021	01:42	ABP21308_TR22	Still	ABP21308-TR22-115	NA		434 236.2	7 299 094.7	433 589.3	7 300 490.8	1538.7
18/09/2021	01:44	ABP21308_TR22	Still	ABP21308-TR22-116	NA		434 236.2	7 299 094.7	433 566.2	7 300 525.0	1579.4
18/09/2021	01:44	ABP21308_TR22	Still	ABP21308-TR22-117	NA		434 236.2	7 299 094.7	433 563.2	7 300 528.2	1583.6
18/09/2021	01:45	ABP21308_TR22	Still	ABP21308-TR22-118	NA		434 236.2	7 299 094.7	433 564.1	7 300 541.5	1595.3
18/09/2021	01:45	ABP21308_TR22	Still	ABP21308-TR22-119	NA		434 236.2	7 299 094.7	433 562.8	7 300 545.1	1599.1

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	01:45	ABP21308_TR22	Still	ABP21308-TR22-120	NA		434 236.2	7 299 094.7	433 560.7	7 300 551.0	1605.3
18/09/2021	01:45	ABP21308_TR22	Still	ABP21308-TR22-121	NA		434 236.2	7 299 094.7	433 560.0	7 300 554.1	1608.4
18/09/2021	01:45	ABP21308_TR22	Still	ABP21308-TR22-122	NA		434 236.2	7 299 094.7	433 558.6	7 300 555.5	1610.3
18/09/2021	01:46	ABP21308_TR22	Still	ABP21308-TR22-123	NA		434 236.2	7 299 094.7	433 557.1	7 300 557.7	1612.9
18/09/2021	01:46	ABP21308_TR22	Still	ABP21308-TR22-124	NA		434 236.2	7 299 094.7	433 551.7	7 300 572.6	1628.7
18/09/2021	01:47	ABP21308_TR22	Still	ABP21308-TR22-125	NA		434 236.2	7 299 094.7	433 546.9	7 300 583.8	1640.9
18/09/2021	01:47	ABP21308_TR22	Still	ABP21308-TR22-126	NA		434 236.2	7 299 094.7	433 546.1	7 300 586.7	1643.9
18/09/2021	01:47	ABP21308_TR22	Still	ABP21308-TR22-127	NA		434 236.2	7 299 094.7	433 544.7	7 300 588.2	1645.8
18/09/2021	01:47	ABP21308_TR22	Still	ABP21308-TR22-128	NA		434 236.2	7 299 094.7	433 542.2	7 300 591.4	1649.8
18/09/2021	01:47	ABP21308_TR22	Still	ABP21308-TR22-129	NA		434 236.2	7 299 094.7	433 543.8	7 300 591.4	1649.1
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-130	NA		434 236.2	7 299 094.7	433 538.8	7 300 595.8	1655.2
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-131	NA		434 236.2	7 299 094.7	433 538.4	7 300 597.8	1657.2
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-132	NA		434 236.2	7 299 094.7	433 537.9	7 300 599.4	1658.8
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-133	NA		434 236.2	7 299 094.7	433 540.0	7 300 601.5	1659.9
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-134	NA		434 236.2	7 299 094.7	433 538.7	7 300 609.6	1667.8
18/09/2021	01:48	ABP21308_TR22	Still	ABP21308-TR22-135	NA		434 236.2	7 299 094.7	433 539.7	7 300 612.4	1669.9
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-136	NA		434 236.2	7 299 094.7	433 536.6	7 300 618.6	1676.8
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-137	NA		434 236.2	7 299 094.7	433 531.6	7 300 628.7	1688.1
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-138	NA		434 236.2	7 299 094.7	433 530.1	7 300 633.7	1693.3
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-139	NA		434 236.2	7 299 094.7	433 529.2	7 300 635.7	1695.4
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-140	NA		434 236.2	7 299 094.7	433 529.2	7 300 638.6	1698.1
18/09/2021	01:49	ABP21308_TR22	Still	ABP21308-TR22-141	NA		434 236.2	7 299 094.7	433 531.1	7 300 641.5	1699.9
18/09/2021	01:50	ABP21308_TR22	Still	ABP21308-TR22-142	NA		434 236.2	7 299 094.7	433 530.2	7 300 645.5	1703.9
18/09/2021	01:50	ABP21308_TR22	Still	ABP21308-TR22-143	NA		434 236.2	7 299 094.7	433 529.0	7 300 647.4	1706.2
18/09/2021	01:50	ABP21308_TR22	Still	ABP21308-TR22-144	NA		434 236.2	7 299 094.7	433 528.5	7 300 649.0	1707.8
18/09/2021	01:51	ABP21308_TR22	Still	ABP21308-TR22-145	NA		434 236.2	7 299 094.7	433 514.9	7 300 657.7	1721.4
18/09/2021	01:52	ABP21308_TR22	Still	ABP21308-TR22-146	NA		434 236.2	7 299 094.7	433 478.0	7 300 673.5	1751.4
18/09/2021	01:52	ABP21308_TR22	Still	ABP21308-TR22-147	NA		434 236.2	7 299 094.7	433 477.1	7 300 676.5	1754.5

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]											
Date	Time [UTC]	Transect	Type	Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]
							Easting	Northing	Easting	Northing	
18/09/2021	01:52	ABP21308_TR22	Still	ABP21308-TR22-148	NA		434 236.2	7 299 094.7	433 476.6	7 300 682.6	1760.2
18/09/2021	01:53	ABP21308_TR22	Still	ABP21308-TR22-149	NA		434 236.2	7 299 094.7	433 475.4	7 300 683.6	1761.7
18/09/2021	01:53	ABP21308_TR22	Still	ABP21308-TR22-150	NA		434 236.2	7 299 094.7	433 472.7	7 300 688.4	1767.1
18/09/2021	01:53	ABP21308_TR22	Still	ABP21308-TR22-151	NA		434 236.2	7 299 094.7	433 468.9	7 300 694.1	1773.9
18/09/2021	01:54	ABP21308_TR22	Still	ABP21308-TR22-152	NA		434 236.2	7 299 094.7	433 462.6	7 300 701.1	1783.0
18/09/2021	01:54	ABP21308_TR22	Still	ABP21308-TR22-153	NA		434 236.2	7 299 094.7	433 460.6	7 300 706.3	1788.5
18/09/2021	01:54	ABP21308_TR22	Still	ABP21308-TR22-154	NA		434 236.2	7 299 094.7	433 460.0	7 300 709.4	1791.6
18/09/2021	01:54	ABP21308_TR22	Still	ABP21308-TR22-155	NA		434 236.2	7 299 094.7	433 460.3	7 300 712.6	1794.3
18/09/2021	01:58	ABP21308_TR22	Still	ABP21308-TR22-156	NA		434 236.2	7 299 094.7	433 414.3	7 300 755.2	1852.8
18/09/2021	01:58	ABP21308_TR22	Still	ABP21308-TR22-157	NA		434 236.2	7 299 094.7	433 414.1	7 300 757.9	1855.3
18/09/2021	02:00	ABP21308_TR22	Still	ABP21308-TR22-158	NA		434 236.2	7 299 094.7	433 409.8	7 300 809.4	1903.5
18/09/2021	02:00	ABP21308_TR22	Still	ABP21308-TR22-159	NA		434 236.2	7 299 094.7	433 409.4	7 300 810.6	1904.7
18/09/2021	02:01	ABP21308_TR22	Still	ABP21308-TR22-160	NA		434 236.2	7 299 094.7	433 403.4	7 300 827.2	1922.3
18/09/2021	02:01	ABP21308_TR22	Still	ABP21308-TR22-161	NA		434 236.2	7 299 094.7	433 401.3	7 300 829.6	1925.3
18/09/2021	02:01	ABP21308_TR22	Still	ABP21308-TR22-162	NA		434 236.2	7 299 094.7	433 399.3	7 300 833.2	1929.5
18/09/2021	02:01	ABP21308_TR22	Still	ABP21308-TR22-163	NA		434 236.2	7 299 094.7	433 397.0	7 300 837.5	1934.3
18/09/2021	02:02	ABP21308_TR22	Still	ABP21308-TR22-164	NA		434 236.2	7 299 094.7	433 395.1	7 300 847.1	1943.8
18/09/2021	02:02	ABP21308_TR22	Still	ABP21308-TR22-165	NA		434 236.2	7 299 094.7	433 395.1	7 300 851.7	1947.9
18/09/2021	02:05	ABP21308_TR22	Still	ABP21308-TR22-166	NA		434 236.2	7 299 094.7	433 380.3	7 300 882.6	1982.2
18/09/2021	02:06	ABP21308_TR22	Still	ABP21308-TR22-167	NA		434 236.2	7 299 094.7	433 378.0	7 300 893.0	1992.6
18/09/2021	02:06	ABP21308_TR22	Video	EOL	32	303.7	434 236.2	7 299 094.7	433 374.7	7 300 902.3	2002.4

Notes
UTC = Coordinated Universal Time
SOL = Startof line
EOL = End of line
BSL = Below sea level

B.2 Video and Photographic Log

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR01	434 419	7 298 195	28	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Mycale lingua*, *Phakellia* sp. and *Antho dichotoma*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms, encrusting forms), sea cucumber (*Parastichopus tremulus*), krill (Euphausiacea), saithe (*Pollachius virens*), gadoid fish (Gadidae),
	434 447	7 298 195				
	434 447	7 298 195	10	ABP21308-TR01-002	Coral rubble on sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), krill (Euphausiacea). Patches of dead *Desmophyllum pertusum*
	434 454	7 298 202				
	434 454	7 298 202	23	ABP21308-TR01-003	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), krill (Euphausiacea), redfish (Sebastidae)
	434 465	7 298 222				
	434 465	7 298 222	5	ABP21308-TR01-004 – ABP21308-TR01-005	Sandy mud/muddy sand with occasional cobbles with coral mound and rubble	Soft corals (*Paragorgia arborea*), cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive forms including Geodiidae, Axinellidae, and *Mycale* lingua; encrusting forms), redfish (Sebastidae). Patches of dead *Desmophyllum pertusum* framework and rubble
	434 469	7 298 225				
	434 509	7 298 225	45	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), krill (Euphausiacea), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 469	7 298 204				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 469	7 298 204	225	ABP21308-TR01-006 – ABP21308-TR01-011	Sandy mud/muddy sand with few pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*, mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea urchin (*Gracilechinus acutus*), squat lobsters (Galatheoidea including *Munida* sp.), shrimps (Caridea), starfish (*Henricia* sp.), sea cucumber (*Parastichopus tremulus*), anemone (Ceriantharia), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), possible forkbeard (*Phycis blennoides*), gadoid fish (Gadidae). Faunal burrows, faunal tracks
	434 694	7 298 196				
	434 694	7 298 196	17	ABP21308-TR01-012	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), krill (Euphausiacea), saithe (*Pollachius virens*), sea cucumber (*Parastichopus tremulus*)
	434 709	7 298 205				
	434 709	7 298 205	7	-	Sandy mud/muddy sand	Starfish (*Henricia* sp.), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*)
	434 708	7 298 212				
	434 708	7 298 212	42	ABP21308-TR01-013 – ABP21308-TR01-014	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including ?*Aplysilla sulfurea*), sea cucumber (*Parastichopus tremulus*), starfish (*Henricia* sp.), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 672	7 298 233				
	434 672	7 298 233	12	ABP21308-TR01-015	Sandy mud/muddy sand	Sponges (mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae). Faunal burrows
	434 683	7 298 238				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 683	7 298 238	31	ABP21308-TR01-016 – ABP21308-TR01-019	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), patch of cold-water coral (*Desmophyllum pertusum*), coral rubble (Dead gorgonian and *Desmophyllum pertusum*), saithe (*Pollachius virens*),gadoid fish (Gadidae.) Faunal burrows
	434 711	7 298 224				
	434 711	7 298 224	30	-	Sandy mud/muddy sand	Sponges (mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), gadoid fish (Gadidae), possible haddock (*Melanogrammus aeglefinus*), sea cucumber (*Parastichopus tremulus*). Faunal burrows and tracks
	434 735	7 298 206				
	434 735	7 298 206	23	ABP21308-TR01-020 – ABP21308-TR01-022	Sandy mud/muddy sand with pebbles, cobbles and few boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms, sea cucumber (*Parastichopus tremulus*), anemone (*Bolocera tuediae*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 752	7 298 191				
	434 752	7 298 191	11	-	Sandy mud/muddy sand	Sponges (mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), starfish (possible *Porania pulvillus*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 749	7 298 180				
	434 749	7 298 180	12	-	Sandy mud/muddy sand	Sponges (mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), starfish (*possible Porania pulvillus*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 756	7 298 190				
	434 756	7 298 190	28	ABP21308-TR01-023 - ABP21308-TR01-025	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), gadoid fish (Gadidae). Faunal burrows
	434 783	7 298 196				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 783	7 298 196	138	ABP21308-TR01-026 – ABP21308-TR01-029	Sandy mud/muddy sand with patch of cobbles and boulder	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; Geodiidae, encrusting forms, massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale lingua*), saithe (*Pollachius virens*), sea cucumber (*Parastichopus tremulus*), possible sea urchin (Echinoidea including *Gracilechinus acutus*), squat lobster (Galatheoidea), redfish (Sebastidae), anemone (*Bolocera tuediae*), gadoid fish (Gadidae), flatfish (Pleuronectiformes. Faunal burrows and turf
	434 921	7 298 196				
ABP21308-TR02	434 669	7 297 944	47	ABP21308-TR02-001	Sandy mud/muddy sand with patch of cobbles and boulder	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; Geodiidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea urchins (Echinoidea including *Gracilechinus acutus*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), gadoid fish (Gadidae). Faunal burrows and tracks
	434 670	7 297 991				
	434 670	7 297 991	20	ABP21308-TR02-002 – ABP21308-TR02-026	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), sea urchins (Echinoidea including *Gracilechinus acutus*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 668	7 298 011				
	434 668	7 298 011	106	ABP21308-TR02-027 – ABP21308-TR02-054	Sandy mud/muddy sand with a patch of cobbles and boulders	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including Polymastiidae, Axinellidae, *Phakellia* sp. and *Mycale* sp; encrusting forms ?*Aplysilla sulfurea*), sea cucumber (*Parastichopus tremulus*), anemones (?*Halcampoides abyssorum*, Ceriantharia and *Bolocera tuediae*), starfish (Valvatida), saithe (*Pollachius virens*), gadoid fish (Gadidae), shrimp (Caridea). Faunal burrows. Coral rubble
	434 669	7 298 117				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 669	7 298 117	14	ABP21308-TR02-055	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), gaoid fish (Gadidae). Faunal burrows
	434 669	7 298 131				
	434 669	7 298 131	68	ABP21308-TR02-056 – ABP21308-TR02-057	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms; massive/erect/branching forms including Axinellidae, *Mycale lingua*, *Phakellia* sp. and *Antho dichotoma*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), gadoid fish (Gadidae), starfish (*Ceramaster granularis* and Valvatida). Faunal burrows
	434 668	7 298 199				
	434 668	7 298 199	10	ABP21308-TR02-058 – ABP21308-TR02-060	Dead coral mound	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Mycale lingua*; encrusting forms), possible cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), anemones (Actiniaria including *Actinostola callosa*), file shell (*Acesta excavata*), redfish (Sebastidae), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 668	7 298 209				
	434 668	7 298 209	32	ABP21308-TR02-061 – ABP21308-TR02-065	Sandy mud/muddy sand with a patches of cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Antho dichotoma* and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), gadoid fish (Gadidae), tusk (*Brosme brosme*). Faunal burrows
	434 668	7 298 241				
	434 668	7 298 241	28	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; Polymastiidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 659	7 298 267				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 659	7 298 267	21	ABP21308-TR02-066 – ABP21308-TR02-069	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Antho dichotoma* and *Mycale lingua*; encrusting forms), anemone (Ceriantharia and *Bolocera tuediae*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 670	7 298 285				
	434 670	7 298 285	58	ABP21308-TR02-070 – ABP21308-TR02-071	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; Polymastiidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows and tracks
	434 678	7 298 342				
	434 678	7 298 342	44	ABP21308-TR02-072 – ABP21308-TR02-077	Coral mound and rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*, possible *Primnoa resedaeformis*), starfish (possible Valvatida), anemone (*Actinostola callosa*), redfish (Sebastidae), saithe (*Pollachius virens*), gadoid fish (Gadidae). Faunal burrows
	434 667	7 298 385				
	434 667	7 298 385	18	ABP21308-TR02-078	Gravelly sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; Polymastiidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae)
	434 668	7 298 403				
	434 668	7 298 403	10	ABP21308-TR02-079	Sandy mud/muddy sand with gravel, pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., and *Mycale lingua*; encrusting forms), redfish (Sebastidae), saithe (*Pollachius virens*), starfish (*Ceramaster granularis*)
	434 664	7 298 412				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 664	7 298 412	1	ABP21308-TR01-080 – ABP21308-TR01-083	Coral mound and rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., and *Mycale lingua*; encrusting forms), file shells (*Acesta excavata*), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework and rubble
	434 664	7 298 411				
	434 664	7 298 411	34	ABP21308-TR02-084 – ABP21308-TR02-085	Sandy mud/muddy sand with gravel, pebbles and cobbles and coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., and *Mycale lingua*; encrusting forms), redfish (Sebastidae), saithe (*Pollachius virens*), starfish (?*Porania pulvillus*). Faunal burrows
	434 671	7 298 444				
ABP21308-TR03	434 921	7 298 197	131	ABP21308-TR03-001 – ABP21308-TR03-004	Sandy mud/muddy sand with few patches of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms; massive/erect/branching forms including Axinellidae, *Mycale lingua*, *Phakellia* sp. and *Antho dichotoma*), anemones (Actiniaria including *Actinostola callosa*), crab (Brachyura), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 828	7 298 105				
	434 828	7 298 105	24	ABP21308-TR03-005 – ABP21308-TR03-012	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), saithe (*Pollarchius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 812	7 298 087				
	434 812	7 298 087	22	ABP21308-TR03-013	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 796	7 298 072				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 796	7 298 072	13	ABP21308-TR03-014 – ABP21308-TR03-024	Coral mound and rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Geodiidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*), file shells (*Acesta excavata*), starfish (Asteroidea), anemone (*Actinostola callosa*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Dead *Desmophyllum pertusum* framework
	434 787	7 298 062				
	434 787	7 298 062	81	ABP21308-TR03-025 – ABP21308-TR03-037	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*; encrusting forms), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea), cushion stars (Valvatida and possible *Porania pulvillus*), saithe (*Pollacius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 730	7 298 004				
	434 730	7 298 004	34	ABP21308-TR03-038	Sandy mud/muddy sand with few patched of pebbles and cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms; massive/erect/branching forms including Axinellidae and *Phakellia* sp.), saithe (*Pollachius virens*), gadoid fish (Gadidae). Faunal burrows
	434 702	7 297 985				
	434 702	7 297 985	15	ABP21308-TR03-039 – ABP21308-TR03-042	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms; massive/erect/branching forms including Axinellidae, *Mycale lingua* and *Phakellia* sp.), anemone (*Actinostola callosa*), bryozoan (*Reteporella* sp.), saithe (*Pollachius virens*), gadoid fish (Gadidae). Faunal burrows
	434 697	7 297 971				
	434 697	7 297 971	41	ABP21308-TR03-043 – ABP21308-TR03-044	Sandy mud/muddy sand with patches of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including Geodiidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*), possible gorgonian coral (*Paragorgia arborea*), sea cucumber (*Parastichopus tremulus*), anemone (Actiniaria), sea urchin (*Gracilechinus acutus*), saithe (*Pollachius virens*), gadoid fish (Gadidae), redfish (Sebastidae). Faunal burrows
	434 667	7 297 943				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR04	434 241	7 297 312	6	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*)
	434 247	7 297 313				
	434 247	7 297 313	23	ABP21308-TR04-002	Gravelly sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), gadoid fish (Gadidae), redfish (Sebastidae). Faunal burrows
	434 270	7 297 311				
	434 270	7 297 311	6	ABP21308-TR04-003 – ABP21308-TR04-004	Sandy mud/muddy sand with pebbles, cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including ?*Aplysilla sulfurea*), gorgonian coral (*Paragorgia arborea*), saithe (*Pollachius virens*), redfish (Sebasidae), anemone (*Actinostola callosa*), starfish (Valvatida), sea cucumber (*Parastichopus tremulus*)
	434 276	7 297 311				
	434 276	7 297 311	11	ABP21308-TR04-005	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*). Faunal burrows
	434 287	7 297 310				
	434 287	7 297 310	8	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*). Faunal burrows
	434 295	7 297 312				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 295	7 297 312	33	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms including *Hymedesmia paupertas*), saithe (*Pollachius virens*). Faunal burrows and tracks
	434 328	7 297 312				
	434 328	7 297 312	14	ABP21308-TR04-006 – ABP21308-TR04-008	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including ?*Aplysilla sulfurea*), saithe (*Pollachius virens*). Possible coral rubble
	434 342	7 297 312				
	434 342	7 297 312	25	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea urchin (*Gracilechinus acutus*), saithe (*Pollachius virens*). Faunal burrows and tracks
	434 367	7 297 314				
	434 367	7 297 314	15	ABP21308-TR04-009 – ABP21308-TR04-010	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas* and *Aplysilla sulfurea*), saithe (*Pollachius virens*). Coral rubble
	434 380	7 297 307				
	434 380	7 297 307	10	ABP21308-TR04-011 – ABP21308-TR04-020	Coral mound	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect forms including Geodiidae, Axinellidae and *Mycale* sp.), file shells (*Acesta excavata*), starfish (*Henricia* sp. and Valvatida), anemone (Actinaria), redfish (Sebastidae), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 389	7 297 303				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 389	7 297 303	13	-	Gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*) saithe (*Pollachius virens*). Coral rubble
	434 399	7 297 311				
	434 399	7 297 311	45	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), gadoid fish (Gadidae). Faunal burrows
	434 444	7 297 310				
	434 444	7 297 310	33	ABP21308-TR04-021	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 477	7 297 311				
	434 477	7 297 311	72	ABP21308-TR04-022 – ABP21308-TR04-023	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including *Aplysilla sulfurea*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actinaria including *Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), cushion star (*Porania pulvillus*), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 549	7 297 310				
	434 549	7 297 310	27	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including *Phakellia* sp., *Antho dichotoma*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), tusk, (*Brosme brosme*). Faunal burrows
	434 574	7 297 320				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 574	7 297 320	12	ABP21308-TR04-024 – ABP21308-TR04-030	Coral mound	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*), file shells (*Acesta excavata*), redfish (Sebastidae), saithe (*Pollachius virens)*. Dead *Desmophyllum pertusum* framework
	434 586	7 297 320				
	434 586	7 297 320	32	ABP21308-TR04-031	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 617	7 297 311				
	434 617	7 297 311	37	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollarchius virens*). Faunal burrows
	434 654	7 297 312				
	434 654	7 297 312	14	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including *Aplysilla sulfurea*), saithe (*Pollachius virens*)
	434 668	7 297 311				
	434 668	7 297 311	47	ABP21308-TR04-032	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollarchius virens*). Faunal burrows
	434 715	7 297 311				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR05	434 469	7 297 062	85	ABP21308-TR05-003 – ABP21308-TR05-007	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/ Tetillidae/Theneidae; massive/erect/branching forms including *Antho dichotoma*), sea cucumber (*Parastichopus tremulus*), redfish (Sebastidae), saithe (*Pollarchius virens*), shrimp (Caridea), cushion star (*Ceramaster granularis*), possible whelk (Buccinidae), sea urchin (*Gracilechinus acutus*). Faunal burrows
	434 470	7 297 147				
	434 470	7 297 147	103	ABP21308-TR05-008 – ABP21308-TR05-018	Sandy mud/muddy sand with pebbles, cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma*, *Mycale lingua* and Geodiidae; encrusting forms including *Aplysilla sulfurea*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), possible bryozoan (*Reteporella* sp.), sea cucumber (*Parastichopus tremulus*), anemone (*Actinostola callosa*), tube worms (Sabellida), redfish (sebastidae), saithe (*Pollachius virens*), skate egg casing. Patches of dead *Desmophyllum pertusum* framework and rubble
	434 501	7 297 245				
	434 501	7 297 245	26	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Antho dichotoma* and Geodiidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*)
	434 480	7 297 260				
	434 480	7 297 260	9	ABP21308-TR05-019 – ABP21308-TR05-021	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Antho dichotoma* and *Mycale lingua*; encrusting forms including *Aplysilla sulfurea*), squat lobsters (Galatheoidea including *Munida* sp.), cushion stars (Valvatida), possible bryozoan (*Reteporella* sp.), anemone (*Actinostola callosa*), saithe (*Pollachius virens*), redfish (Sebastidae). Coral rubble
	434 472	7 297 264				
	434 472	7 297 264	16	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including Axinellidae, *Phakellia* sp.), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 468	7 297 279				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 468	7 297 279	15	ABP21308-TR05-022	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Antho dichotoma*; encrusting forms including *Aplysilla sulfurea*), sea cucumber (*Parastichopus tremulus*), anemone (*Actinostola callosa*), possible bryozoan (*Reteporella* sp.), redfish (Sebastidae), saithe (*Pollachius virens*)
	434 469	7 297 294				
	434 469	7 297 294	36	ABP21308-TR05-023 – ABP21308-TR05-029	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 469	7 297 330				
	434 469	7 297 330	19	ABP21308-TR05-030 – ABP21308-TR05-031	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*; encrusting forms including *Aplysilla sulfurea*), sea cucumber (*Parastichopus tremulus*), anemone (*Actinostola callosa*), king crab (*Lithodes maja*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 468	7 297 349				
	434 468	7 297 349	10	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 469	7 297 359				
	434 469	7 297 359	46	ABP21308-TR05-032 – ABP21308-TR05-035	Sandy mud/muddy sand with pebbles, cobbles and a bouder	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*; encrusting forms including *Aplysilla sulfurea*), possible bryozoan (*Reteporella* sp.), starfish (Asteroidea), cushion stars (Valvatida), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows. Coral rubble
	434 469	7 297 405				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 469	7 297 405	25	ABP21308-TR05-036 – ABP21308-TR05-037	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 469	7 297 430				
	434 469	7 297 430	5	ABP21308-TR05-038	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*; encrusting forms including *Aplysilla sulfurea*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), possible sea urchin (*Gracilechinus acutus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 468	7 297 435				
	434 468	7 297 435	40	ABP21308-TR05-039 – ABP21308-TR05-040	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including *Mycale lingua*, *Antho dichotoma* and Geodiidae; encrusting forms), sea cucumber (*Parastichopus tremulus*), sea urchin (*Gracilechinus acutus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 468	7 297 475				
	434 468	7 297 475	25	ABP21308-TR05-041	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae , *Antho dichotoma*, *Mycale lingua* and *Phakellia* sp.; encrusting forms including *Aplysilla sulfurea*), possible bryozoan (*Reteporella* sp.), sea cucumber (*Parastichopus tremulus*), anemone (*Actinstola callosa*), saithe (*Pollachius virens*). Faunal burrows
	434 481	7 297 496				
	434 481	7 297 496	9	ABP21308-TR05-042 – ABP21308-TR05-045	Coral mound	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect forms including Geodiidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), file shells (*Acesta excavata*), sea cucumber (*Parastichopus tremulus*), anemone (Actiniaria including *Actinostola callosa*), king crab (*Lithodes maja*), redfish (Sebastidae), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 482	7 297 505				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 482	7 297 505	59	ABP21308-TR05-046 – ABP21308-TR05-047	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; massive/erect/branching forms including *Phakellia* sp,; encrusting forms including *Aplysilla sulfurea*), sea urchin (*Gracilechinus acutus*), sea cucumber (*Parastichopus tremulus*), anemone (*Actinostola callosa*), saithe (*Pollachius virens*). Faunal burrows
	434 470	7 297 563				
ABP21308-TR06	434 472	7 297 561	8	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*). Faunal burrows
	434 465	7 297 558				
	434 465	7 297 558	88	ABP21308-TR06-002 – ABP21308-TR06-012	Sandy mud/muddy sand with cobbles and patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*; encrusting forms including *Aplysilla sulfurea*), gorgonian corals (*Paragorgia arborea*) anemone (*Actinstola callosa*), cushion stars (*Porania pulvillus*), sea cucumber (*Parastichopus tremulus*), possible bryozoan (*Reteporella* sp.), saithe (*Pollacius virens*), redfish (Sebastidae). Faunal burrows. Dead *Desmophyllum pertusum* framework
	434 404	7 297 495				
	434 404	7 297 495	9	ABP21308-TR06-013 – ABP21308-TR06-015	Coral mound	Sponges (Porifera: massive/erect forms including Geodiidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), file shells (*Acesta excavata*), sea cucumber (*Parastichopus tremulus*), anemone (Actiniaria including *Actinostola callosa*), redfish (Sebastidae), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 399	7 297 487				
	434 399	7 297 487	42	ABP21308-TR06-016	Sandy mud/muddy sand with cobbles and coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp., *Mycale lingua* and *Antho dichotoma*), possble cold-water coral (*Desmophyllum pertusum*) saithe *(Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 366	7 297 461				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 366	7 297 461	14	ABP21308-TR06-017 – ABP21308-TR06-021	Coral mound	Sponges (Porifera: massive/erect forms including Geodiidae, *Phakellia* sp, *Mycale lingua*), gorgonian corals (*Paragorgia arborea*), cold-water coral (*Desmophyllum pertusum*), file shells (*Acesta excavata*), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	434 358	7 297 449				
	434 358	7 297 449	22	ABP21308-TR06-022	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and Antho dichotoma; encrusting forms including possible *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (*Actinostola callosa*), redfish (Sebastidae)
	434 339	7 297 437				
	434 339	7 297 437	29	-	Sandy mud/muddy sand with cobbles, small boulders and dead coral framework and coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, *Phakellia* sp., *Mycale lingua*) gorgonian corals (*Paragorgia arborea*), anemone (Actinaria), redfish (Sebastidae)
	434 311	7 297 431				
	434 311	7 297 431	14	ABP21308-TR06-023	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (*Actinostola callosa*), saithe (*Pollachius virens*)
	434 324	7 297 425				
	434 324	7 297 425	17	ABP21308-TR06-024 – ABP21308-TR06-025	Sandy mud/muddy sand with cobbles, boulders and dead coral framework and coral rubble	Sponges (Porifera: massive/erect/branching forms including *Mycale lingua*, *Phakellia* sp., *Antho dichotoma*; encrusting forms), gorgonian corals (*Paragorgia arborea*), anemone (*Actinostola callosa*), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 315	7 297 411				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 315	7 297 411	52	ABP21308-TR06-026 – ABP21308-TR06-027	Sandy mud/muddy sand with cobbles boulders and patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including *Mycale lingua*, *Phakellia* sp., *Antho dichotoma*; encrusting forms), anemone (*Actinostola callosa*), saithe (*Pollachius virens*)
	434 280	7 297 372				
	434 280	7 297 372	19	ABP21308-TR06-028	Sandy mud/muddy sand and boulders	Sponges (Porifera: massive/erect/branching forms including *Mycale lingua*, *Phakellia* sp.; encrusting forms), anemone (*Actinostola callosa*), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae)
	434 266	7 297 359				
	434 266	7 297 359	36	-	Sandy mud/muddy sand with few pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and *?Antho dichotoma*; encrusting sponges; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), saithe (*Pollachius virens*). Faunal burrows. Anthropogenic debris
	434 242	7 297 332				
	434 242	7 297 332	5	ABP21308-TR06-029	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, *Antho dichotoma*, Axinellidae; encrusting sponges), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*)
	434 237	7 297 330				
	434 237	7 297 330	11	ABP21308-TR06-030 – ABP21308-TR06-036	Coral mound	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect forms including *Antho dichotoma*, *Phakellia* sp, *Mycale lingua*), file shell (*Acesta excavata*), cushion stars(possible *Porania pulvillus*), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	434 227	7 297 325				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 227	7 297 325	16	ABP21308-TR06-037	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, *Antho dichotoma;* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 220	7 297 311				
ABP21308-TR07	434 386	7 298 605	24		Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae). Faunal burrows
	434 386	7 298 581				
	434 386	7 298 581	14		Dead coral framework, coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua* and encrusting forms), gorgonian corals (*Paragorgia arborea*), file shells (*Acesta excavata*), redfish (Sebastidae), saithe (*Pollachius virens*), soft coral (Alcyonacea), sea cucumber (Holothuroidea)
	434 381	7 298 568				
	434 381	7 298 568	51		Sandy mud/muddy sand with cobbles and small boulders and some coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua* and encrusting forms), gorgonian corals (*Paragorgia arborea*),saithe (*Pollachius virens*), redfish (Sebastidae), starfish (Valvatida), sea cucumber (*Parastichops tremulus*). Faunal burrows
	434 382	7 298 517				
	434 382	7 298 517	31		Sandy mud/muddy sand with occasional cobbble and small boulder	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*). Faunal mounds and burrows
	434 376	7 298 487				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 376	7 298 487	35		Sandy mud/muddy sand with cobbles and small boulders, some conspicuous mounds	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), soft coral (Alcyonacea), redfish (Sebastidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), anemone (Actiniaria). Faunal burrows
	434 387	7 298 454				
	434 387	7 298 454	8		Dead coral framework, coral rubble and some cobbles and small boulders	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), saithe (*Pollachius virens*), cushions stars (Valvatida), file shells (*Acesta excavata*)
	434 388	7 298 446				
	434 388	7 298 446	53		Sandy mud/muddy sand with large patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), redfish (Sebastidae), starfish (Valvatida), tusk (*Brosme brosme*), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), anemone (Actiniaria). Faunal burrows and mounds
	434 359	7 298 402				
	434 359	7 298 402	18		Sandy mud/muddy sand with occasional cobbbles and small boulder	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), redfish (Sebastidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea). Faunal burrows and mounds
	434 377	7 298 404				
	434 377	7 298 404	41		Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*). saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*). Faunal burrows
	434 377	7 298 363				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR08	434 426	7 298 138	6		Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), squat lobster (Galatheoidea). Faunal burrows
	434 425	7 298 132				
	434 425	7 298 132	88		Sandy mud/muddy sand with cobbles, small boulders and some coral rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae), anemone (Actiniaria), sea cucumber (*Parastichops tremulus*), cushion star (Valvatida), Faunal burrows and mounds
	434 416	7 298 044				
	434 416	7 298 044	13		Sandy mud/muddy sand with coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), cushion stars (Valvatida), sea urchin (Echinoidea), redfish (Sebastidae)
	434 421	7 298 032				
	434 421	7 298 032	37		Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), cushion stars (Valvatida including *Porania* sp.), anemone (Actiniaria), squat lobster (Galatheoidea). Faunal mounds and burrows. Anthropogenic debris - plastic sheet
	434 424	7 297 995				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 424	7 297 995	44		Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea). Faunal mounds and burrows
	434 413	7 297 952				
	434 413	7 297 952	13		Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), saithe (*Pollachius virens*), redfish (Sebastidae), cushion stars (*Porania pulvillus*), anemone (Actiniaria), file shells (*Acesta excavata*)
	434 400	7 297 955				
	434 400	7 297 955	28		Sandy mud/muddy sand with a small patch of cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), anemone (Actiniaria), cushion stars (Valvatida). Faunal burrows and mounds
	434 397	7 297 927				
	434 397	7 297 927	23		Sandy mud/muddy sand with coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms). Faunal burrows
	434 418	7 297 936				
ABP21308-TR09	434 910	7 298 527	36	ABP21308-TR09-001 – ABP21308-TR09-002	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/stalked forms including Axinellidae and *Phakellia* sp.; encrusting forms), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). *Desmophyllum pertusum* rubble. Faunal burrows
	434 945	7 298 519				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 945	7 298 519	16	ABP21308-TR09-003 – ABP21308-TR09-009	Coral rubble on sandy mud/muddy sand	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), gorgonian coral (*Paragorgia arborea*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). *Desmophyllum pertusum* rubble
	434 960	7 298 525				
	434 960	7 298 525	30	ABP21308-TR09-010 – ABP21308-TR09-015	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), anemones (Actiniaria including *Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 981	7 298 504				
	434 981	7 298 504	12	ABP21308-TR09-016 – ABP21308-TR09-021	Coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Mycale lingua*), soft corals (Alcyonium including *Paragorgia arborea* and *?Anthothela grandiflora*), starfish (Asteroidea), king crab (Lithodidae), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	434 992	7 298 499				
	434 992	7 298 499	43	ABP21308-TR09-022 – ABP21308-TR09-024	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), anemone (Actiniaria including *Actinostola callosa*), saithe (*Pollachius virens*), redfish (Sebastidae). *Desmophyllum pertusum* rubble. Faunal burrows
	435 032	7 298 484				
	435 032	7 298 484	10	ABP21308-TR09-025 – ABP21308-TR09-033	Coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Mycale lingua*), gorgonian corals (Alcyonium including *Paragorgia arborea* and ?*Primnoa resedaeformis*), sea urchin (Echinoidea), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	435 038	7 298 492				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 038	7 298 492	68	ABP21308-TR09-034 – ABP21308-TR09-038	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumbers (*Prastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). *Desmophyllum pertusum* rubble. Faunal burrows
	435 097	7 298 458				
	435 097	7 298 458	16	ABP21308-TR09-039 – ABP21308-TR09-043	Coral rubble on sandy mud/muddy sand	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	435 108	7 298 446				
	435 108	7 298 446	24	ABP21308-TR09-043 – ABP21308-TR09-050	Sandy mud/muddy sand with pebbles, cobbles and small boulders, patch of dead coral framework	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Gadiformes). Dead *Desmophyllum pertusum* framwroks and rubble. Faunal burrows
	435 105	7 298 422				
ABP21308-TR10	434 678	7 297 753	22	ABP21308-TR10-001 – ABP21308-TR10-007	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), anemone (*Actinostola callosa*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	434 683	7 297 732				
	434 683	7 297 732	15	ABP21308-TR10-008 – ABP21308-TR10-015	Coral framework and rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, Geodiidae and *Mycale lingua*), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Gadiformes). Dead *Desmophyllum pertusum* framework and rubble
	434 669	7 297 727				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 669	7 297 727	35	ABP21308-TR10-016 – ABP21308-TR10-022	Sandy mud/muddy sand with pebbles, cobbles and occasional small boulders, patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), crinoid (Crinoidea), shrimp (Caridea), saithe (*Pollachius virens*), fish (Pisces). *Desmophyllum pertusum* rubble. Faunal burrows
	434 693	7 297 702				
	434 693	7 297 702	43	ABP21308-TR10-023 – ABP21308-TR10-028	Patches of coral framework and rubble on muddy sand/sandy mud with pebbles and cobbles	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Mycale lingua*), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	434 695	7 297 659				
	434 695	7 297 659	53	ABP21308-TR10-029 – ABP21308-TR10-037	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (*Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 735	7 297 694				
	434 735	7 297 694	26	ABP21308-TR10-038	Sandy mud/muddy sand	Sponges (Porifera: massive forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), greater forkbeard (*Phycis blennoides*), redfish (Sebastidae). Faunal burrows
	434 744	7 297 670				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 744	7 297 670	32	ABP21308-TR10-039 – ABP21308-TR10-044	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), anemones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), cushion star (*Porania pulvillus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 725	7 297 644				
	434 725	7 297 644	5	ABP21308-TR10-045 – ABP21308-TR10-048	Coral framework	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*), anemone (Actiniaria), sea urchin (Echinoidea), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	434 721	7 297 641				
	434 721	7 297 641	10	-	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 721	7 297 631				
	434 721	7 297 631	20	-	Sandy mud/muddy sand, a small boulder	Sponges (Porifera: massive/erect forms including *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), greater forkbeard (*Phycis blennoides*), redfish (Sebastidae). Faunal burrows
	434 738	7 297 620				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 738	7 297 620	57	ABP21308-TR10-049 – ABP21308-TR10-052	Sandy mud/muddy sand with pebbles, cobbles and small boulders, small patches of coral framework	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria including *Actinostola callosa*), starfish (Asteroidea), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal burrows
	434 795	7 297 624				
	434 795	7 297 624	15	ABP21308-TR10-053	Sandy mud/muddy sand	Sponges (Porifera: massive/erect forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	434 806	7 297 614				
ABP21308-TR11	434 142	7 297 467	27	ABP21308_TR11_002	Gravellly sandy mud/muddy sand	Sponges (Porifera: massive/branching/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*). Faunal burrows
	434 161	7 297 448				
	434 161	7 297 448	10	ABP21308_TR11_003 - ABP21308_TR11_007	Dead coral framework and rubble with shell fragments	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*), file shells (*Acesta excavata*), tube dwelling anenome (Ceriantharia), redfish (Sebastidae), tusk (*Brosme brosme*)
	434 167	7 297 440				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 167	7 297 440	21	ABP21308_TR11_008 - ABP21308_TR11_012	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, Phakellia sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), saithe (*Pollachius virens*), fish (Pisces)
	434 176	7 297 421				
	434 176	7 297 421	12	ABP21308_TR11_013 - ABP21308_TR11_031	Dead coral framework and rubble with shell fragments and some patches of sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), Sponges (Porifera: massive/erect/branching forms including Axinellidae, Phakellia sp. and *Mycale lingua*), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae), tube dwelling anenome (Ceriantharia), tusk (*Brosme brosme*), soft coral (Alcyonacea)
	434 175	7 297 409				
	434 175	7 297 409	24	ABP21308_TR11_032 - ABP21308_TR11_037	Sandy mud/muddy sand with pebbles, cobbles and small boulders. Occasional patches of coral rubble	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), tusk (*Brosme brosme*)
	434 167	7 297 386				
	434 167	7 297 386	28	ABP21308_TR11_038 - ABP21308_TR11_040	Sandy mud/muddy sand	Sponges (Porifera: massive/branching/stalked forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), tube dwelling anenome (Ceriantharia), fish (Pisces). Faunal burrows
	434 148	7 297 365				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 148	7 297 365	71	ABP21308_TR11_041 - ABP21308_TR11_048	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), cushion star (Valvatida), tusk (*Brosme brosme*), fish(Pisces), anemone (Actiniaria), redfish (Sebastidae). Faunal burrows
	434 132	7 297 296				
	434 132	7 297 296	23	ABP21308_TR11_049 - ABP21308_TR11_064	Dead coral framework, shell fragments and some cobbles and small boulders	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*), file shells (*Acesta excavata*), saithe (*Pollachius virens*), starfish (Asteroidea), redfish (Sebastidae), feather star (Crinoidea), soft coral (Alcyonacea)
	434 145	7 297 277				
	434 145	7 297 277	10	-	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), anemone (Actiniaria)
	434 135	7 297 275				
	434 135	7 297 275	3	ABP21308_TR11_065 - ABP21308_TR11_068	Dead coral framework	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), file shells (*Acesta excavata*), redfish (Sebastidae), crab (Brachyura)
	434 134	7 297 278				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 134	7 297 278	37	ABP21308_TR11_069 - ABP21308_TR11_073	Gravelly sandy mud/muddy sand with patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), gorgonian corals (*Paragorgia arborea*), sea urchin (Echinoidea), possible possible Cephalopod (Cephalopoda), tusk (*Brosme brosme*), ?sea cucumber (Holothuroidea). Faunal burrows
	434 139	7 297 241				
	434 139	7 297 241	11	ABP21308_TR11_074 - ABP21308_TR11_078	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), starfish (Asteroidea), polychaete worm (Sabellidae). Faunal burrows
	434 140	7 297 230				
ABP21308-TR13	434 642	7 299 185	41	ABP21308_TR13_001 - ABP21308_TR13_009	Gravelly sandy mud/muddy sand with very occasional cobbles	Silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), sponges (Porifera: stalked forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea urchin (Echinoidea), crab (Brachyura), sea cucumber (*Parastichops tremulus*). Faunal burrows
	434 638	7 299 226				
	434 638	7 299 226	44	ABP21308_TR13_010 - ABP21308_TR13_014	Gravelly sandy mud/muddy sand with some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), fish (Pisces), sea cucumber (*Parastichops tremulus*). Faunal burrows
	434 639	7 299 270				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 639	7 299 270	79	ABP21308_TR13_015 - ABP21308_TR13_020	Gravelly sandy mud/muddy sand with very occasional cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), sea urchin (Echinoidea), fish (Pisces), sea cucumber (*Parastichops tremulus)*. Faunal burrows
	434 641	7 299 349				
	434 641	7 299 349	27	ABP21308_TR13_021 - ABP21308_TR13_026	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), tube dwelling anemone (Ceriantharia), redfish (Sebastidae), sea urchin (Echinoidea), tusk (*Brosme brosme*)
	434 643	7 299 376				
	434 643	7 299 376	88	ABP21308_TR13_027 - ABP21308_TR13_044	Gravelly sandy mud/muddy sand with occasional small patches of cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), fish (Pisces), tube dwelling anenome (Ceriantharia), sea cucumber (?*Mesothuria intestinalis* and *Parastichops tremulus*), sea urchin (Echinoidea), saithe (*Pollachius virens*), starfish (Asteroidea). Faunal burrows
	434 634	7 299 464				
	434 634	7 299 464	38	ABP21308_TR13_045 - ABP21308_TR11_059	Sandy mud/muddy sand with cobbles and boulders	Cold-water coral (*Desmophyllum pertusum*), gorgonian corals (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), tusk (*Brosme brosme*), starfish (Asteroidea including Asterinidae), redfish (Sebastidae), fish (Pisces)
	434 652	7 299 497				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 652	7 299 497	26	ABP21308_TR13_060 - ABP21308_TR13_064	Gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), tusk (*Brosme brosme*), redfish (Sebastidae), crustacean (Crustacea), sea cucumber (?*Mesothuria intestinalis*). Faunal burrows
	434 670	7 299 516				
	434 670	7 299 516	11	ABP21308_TR13_065 - ABP21308_TR13_074	Gravelly sandy mud/muddy sand with cobbles and small boulders and coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus* and ?*Mesothuria intestinalis*), saithe (*Pollachius virens*), redfish (Sebastidae), anemone (Actiniaria), brittlestar (Ophiuroidea)
	434 665	7 299 526				
	434 665	7 299 526	22	ABP21308_TR13_075 - ABP21308_TR13_076	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows and mounds
	434 647	7 299 539				
	434 647	7 299 539	59	ABP21308_TR13_077 - ABP21308_TR13_096	Sandy mud/muddy sand with cobbles and small boulders and coral rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), anemone (Actiniaria), Faunal mounds and burrows
	434 613	7 299 587				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 616	7 299 581	18	ABP21308_TR13_097 - ABP21308_TR13_104	Dead coral framework and rubble with some patches of sandy mud/muddy sand, cobbles and small boulders	Cold-water coral (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), sea urchin (Echinoidea), tube dwelling anenome (Ceriantharia), soft coral (Alcyonacea), saithe (*Pollachius virens*)
	434 607	7 299 597				
	434 607	7 299 597	33	ABP21308_TR13_105 - ABP21308_TR11_113	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae), saithe (*Pollachius virens*), green spoon worm (*Bonellia viridis*), anemone (Actiniaria)
	434 631	7 299 619				
	434 631	7 299 619	110	ABP21308_TR13_114 - ABP21308_TR13_135	Sandy mud/muddy sand with patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), squat lobster (Galatheoidea), tusk (*Brosme brosme*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows and mounds
	434 630	7 299 729				
	434 630	7 299 729	28	ABP21308_TR13_135 - ABP21308_TR13_137	Sandy mud/muddy sand with very occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), starfish (Asteroidea), squat lobster (Galatheoidea). Faunal burrows and mounds
	434 626	7 299 757				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 626	7 299 757	29	ABP21308_TR13_105 - ABP21308_TR13_1	Gravelly sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus* and ?*Mesothuria intestinalis)*. Faunal burrows and mounds
	434 626	7 299 786				
	434 626	7 299 786	48	ABP21308_TR13_138 - ABP21308_TR13_148	Sandy mud/muddy sand with some gravel	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), starfish (Asteroidea). Faunal burrows, *Nephrops norvegicus* burrows
	434 626	7 299 834				
	434 626	7 299 834	106	ABP21308_TR13_149 - ABP21308_TR11_175	Sandy mud/muddy sand with cobbles and boulders) and occasional patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae), saithe (*Pollachius virens*), squat lobster (Galatheoidea), sea urchin (Echinoidea). Faunal burrows and mounds
	434 639	7 299 939				
	434 639	7 299 939	46	ABP21308_TR13_176 - ABP21308_TR13_179	Gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), fish (Pisces), squat lobster (Galatheoidea). Faunal burrows
	434 616	7 299 979				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 616	7 299 979	32	ABP21308_TR13_180 - ABP21308_TR13_182	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*)
	434 618	7 300 011				
	434 617	7 300 007	35	ABP21308_TR13_185 - ABP21308_TR13_205	Sandy mud/muddy sand with cobbles and boulders. One patch of dead coral framework	Cold-water coral (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae), file shells (*Acesta excavata*), crab (Brachyura), soft coral (Alcyonacea)
	434 608	7 300 041				
	434 608	7 300 041	87	ABP21308_TR13_206 - ABP21308_TR13_228	Gravelly sandy mud/muddy sand with some patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), tusk (*Brosme brosme*). Faunal burrows
	434 611	7 300 128				
	434 611	7 300 128	90	ABP21308_TR13_229 - ABP21308_TR11_235	Sandy mud/muddy sand with very occasional cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*). Faunal burrows and mounds
	434 612	7 300 218				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 613	7 300 216	17	ABP21308_TR13_236 - ABP21308_TR11_237	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae; encrusting forms, mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), fish (Pisces), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), squat lobster (Galatheoidea), green spoon worm (*Bonellia viridis*). Faunal burrows and mounds
	434 610	7 300 233				
	434 610	7 300 233	58	ABP21308_TR13_238 - ABP21308_TR13_248	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), tusk (*Brosme brosme*). Faunal burrows and mounds
	434 610	7 300 291				
	434 610	7 300 291	39	ABP21308_TR13_249 - ABP21308_TR13_254	Sandy mud/muddy sand with very occasional cobbles and small boulders and some gravel	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*). Faunal mounds and burrows
	434 609	7 300 330				
	434 609	7 300 330	12	ABP21308_TR13_255	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 607	7 300 342				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 607	7 300 342	37	ABP21308_TR13_256 - ABP21308_TR11_257	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), faunal burrows
	434 604	7 300 379				
	434 604	7 300 379	40	ABP21308_TR13_258 - ABP21308_TR11_267	Sandy mud/muddy sand with cobbles and small boulders and coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), pencil urchin (*Cidaris cidaris*), soft coral (Alcyonacea), brittle star (Ophiuroidea), anemone (Actiniaria). Faunal burrows
	434 624	7 300 414				
	434 624	7 300 414	100	ABP21308_TR13_268 - ABP21308_TR13_273	Sandy mud/muddy sand with a couple cobbles and small boulders with some gravelly patches	Sponges (Porifera: erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus* and ?Mesothuria intestinalis), faunal turf (Hydrozoa/Bryozoa), saithe (*Pollachius virens*), squat lobster (Galatheoidea), fish (Pisces). Faunal burrows and mounds
	434 602	7 300 512				
	434 602	7 300 512	10	ABP21308_TR13_274 - ABP21308_TR13_275	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp.; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), squat lobster (Galatheoidea)
	434 602	7 300 522				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 603	7 300 521	28	ABP21308_TR13_277 - ABP21308_TR13_282	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), tusk (*Brosme brosme*), anemone (Actiniaria), redfish (Sebastidae), cushion stars (Valvatida), crab (Brachyura), sea cucumber (*Parastichops tremulus*). Faunal mounds
	434 602	7 300 549				
	434 602	7 300 549	33	ABP21308_TR13_283 - ABP21308_TR13_285	Gravelly sandy mud/muddy sand with occasional cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*). Faunal burrows
	434 602	7 300 582				
	434 602	7 300 582	26	ABP21308_TR13_286 - ABP21308_TR13_287	Sandy mud/muddy sand with some cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	434 593	7 300 606				
	434 593	7 300 606	65	ABP21308_TR13_288	Sandy mud/muddy sand with one small boulder	Sponges (Porifera: erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), fish (Pisces), sea urchin (Echinoidea). Faunal burrows and mounds
	434 595	7 300 671				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 595	7 300 671	14	ABP21308_TR13_289 - ABP21308_TR13_291	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), cushion stars (Valvatida), tusk (*Brosme brosme*)
	434 597	7 300 685				
	434 597	7 300 685	18	ABP21308_TR13_292	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including *Stylocordyla borealis* and Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus* and ?*Mesothuria intestinalis*). Faunal burrows
	434 599	7 300 703				
	434 596	7 300 704	64	ABP21308_TR13_293 - ABP21308_TR13_297	Sandy mud/muddy sand with a couple patches of cobbles and small boudlers	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), silvery pout (*Gadiculus argenteus*), starfish (Asteroidea), cushion stars (Valvatida), squat lobster (Galatheoidea), redfish (Sebastidae), saithe (*Pollachius virens*). Faunal burrows
	434 596	7 300 768				
	434 596	7 300 768	34	ABP21308_TR13_298 - ABP21308_TR13_299	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), tube dwelling anemone (Ceriantharia), redfish (Sebastidae), anemone (Actiniaria). Faunal burrows
	434 588	7 300 801				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 588	7 300 801	25	ABP21308_TR13_300 - ABP21308_TR13_302	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including *Stylocordyla borealis* and Axinellidae; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), redfish (Sebastidae). Faunal burrows and mounds
	434 592	7 300 826				
	434 592	7 300 826	46	ABP21308_TR13_303 - ABP21308_TR13_308	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), saithe (Pollachius virens), redfish (Sebastidae), tusk (*Brosme brosme*), anemone (Actiniaria), squat lobster (Galatheoidea), cushion stars (Valvatida and *Porania pulvillus*), sea cucumber (*Parastichops tremulus*). Faunal mound
	434 586	7 300 872				
	434 586	7 300 872	48	ABP21308_TR13_309	Gravelly sandy mud/muddy sand with very occasional cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), faunal burrows
	434 589	7 300 920				
	434 589	7 300 920	12	ABP21308_TR13_310	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae),
	434 590	7 300 932				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 590	7 300 932	55	ABP21308_TR13_311 - ABP21308_TR13_312	Sandy mud/muddy sand with occasional small boulder	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), fish (Pisces). Faunal burrows and mounds
	434 589	7 300 987				
	434 591	7 300 984	59	ABP21308_TR13_313 - ABP21308_TR13_316	Sandy mud/muddy sand with occasional patch of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), anemone (Actiniaria), squat lobster (Galatheoidea). Faunal burrows and mounds
	434 588	7 301 043				
	434 588	7 301 043	16	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*). Faunal mounds
	434 587	7 301 059				
	434 587	7 301 059	36	-	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea). Faunal burrows
	434 592	7 301 095				

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Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 592	7 301 095	10	ABP21308_TR13_317 - ABP21308_TR13_319	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal mounds
	434 586	7 301 103				
	434 586	7 301 103	13	-	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), cushion stars (Valvatida), redfish (Sebastidae). Faunal burrows and mounds
	434 586	7 301 116				
	434 586	7 301 116	60	ABP21308_TR13_320 - ABP21308_TR13_336	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima paupertas*), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus* and *Mesothuria intestinalis*), squat lobster (Galatheoidea), gurnard (Triglidae), anemone (Actiniaria), sea urchin (Echinoidea), starfish (Asteroidea including possible *Henricia* sp.), tusk (*Brosme brosme*). Faunal mounds and burrows
	434 580	7 301 176				
	434 580	7 301 176	18	ABP21308_TR13_337 - ABP21308_TR13_339	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal mounds and burrows
	434 583	7 301 194				

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Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR14	436 441	7 300 624	134	ABP21308-TR14-004 – ABP21308-TR14-028	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), redfish (Sebastidae), anemone (Actiniaria), silvery pout (*Gadiculus argenteus*), fish (Pisces), sea cucumber (*Parastichops tremulus*). Faunal mounds and burrows
	436 373	7 300 509				
	436 373	7 300 509	35	ABP21308-TR14-029 – ABP21308-TR14-025	Sandy mud/muddy sand with occasional cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal mounds and burrows, *Nephrops norvegicus* burrows
	436 372	7 300 474				
	436 372	7 300 474	47	ABP21308-TR14-026 – ABP21308-TR14-033	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), anemone (Actiniaria), sea cucumber (*Parastichops tremulus*). Faunal mounds and burrows
	436 345	7 300 435				
	436 345	7 300 435	151	ABP21308-TR14-034 – ABP21308-TR14-046	Sandy mud/muddy sand with very occasional cobble or boulder	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), fish (Pisces), sea cucumber (Holothuroidea including *Parastichops tremulus*), ?blue ling (*Molva dypterygia*), flatfish (Pleuronectiformes), starfish (Asteroidea), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*). *Nephrops norvegicus* burrows, faunal mounds and burrows
	436 240	7 300 327				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 240	7 300 327	26	ABP21308-TR14-047 - ABP21308-TR14-059	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), redfish (Sebastidae), anemone (Actiniaria), fish (Gadidae), tusk (*Brosme brosme*)
	436 226	7 300 305				
	436 226	7 300 305	15	ABP21308-TR14-060	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), fish (Pisces). Faunal mounds and burrows
	436 218	7 300 292				
	436 218	7 300 292	13	ABP21308-TR14-061 - ABP21308-TR14-065	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae)
	436 212	7 300 281				
	436 212	7 300 281	17	ABP21308-TR14-066 - ABP21308-TR14-068	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), fish (Pisces). Faunal burrows
	436 203	7 300 267				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 203	7 300 267	29	ABP21308-TR14-069 – ABP21308-TR14-076	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), squat lobster (Galatheoidea), anemone (Actiniaria), tusk (*Brosme brosme*)
	436 188	7 300 242				
	436 188	7 300 242	15	ABP21308-TR14-077 – ABP21308-TR14-078	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), fish (Pisces), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*). Faunal mounds and burrows
	436 180	7 300 229				
	436 180	7 300 229	22	ABP21308-TR14-079 – ABP21308-TR14-082	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (Holothuroidea), anemone (Actiniaria), fish (Pisces), redfish (Sebastidae),
	436 162	7 300 217				
	436 162	7 300 217	44	ABP21308-TR14-083	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), sea cucumber (Holothuroidea including *Parastichops tremulus*), cushion stars (Valvatida). Faunal burrows and mounds
	436 136	7 300 181				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 136	7 300 181	30	ABP21308-TR14-084 – ABP21308-TR14-086	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), starfish (Asteroidea). Faunal burrows and mounds
	436 120	7 300 156				
	436 120	7 300 156	22	ABP21308-TR14-087 – ABP21308-TR14-089	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), cushion star (?*Porania pulvillus*), fish (Pisces). Faunal burrows
	436 108	7 300 138				
	436 108	7 300 138	106	ABP21308-TR14-090 – ABP21308-TR14-099	Sandy mud/muddy sand with cobbles and small boulders and small patches of just Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae), squat lobster (Galatheoidea), anemone (Actiniaria), tusk (*Brosme brosme*), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), sea cucumber (Holothuroidea), cushion stars (Valvatida and ?*Porania pulvilllus*). Faunal mounds and burrows
	436 041	7 300 056				
	436 041	7 300 056	61	ABP21308-TR14-100 – ABP21308-TR14-105	Sandy mud/muddy sand with occasional cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*). Faunal mounds and burrows
	436 007	7 300 005				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 007	7 300 005	56	ABP21308-TR14-106 – ABP21308-TR14-119	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), anemone (Actiniaria), saithe (*Pollachius virens*), tusk (*Brosme brosme*), soft coral (Alcyonacea), starfish (Asteroidea), feather star (Crinoidea). Faunal burrows and mounds. Anthropogenic debris - concrete block, pipe
	435 951	7 299 998				
	435 951	7 299 998	15	-	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae), squat lobster (Galatheoidea). Faunal burrows
	435 951	7 299 983				
	435 951	7 299 983	21	-	Sandy mud/muddy sand with cobbles and occasional small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft coral (Alcyonacea), fish (Pisces), redfish (Sebastidae). Faunal mounds
	435 961	7 299 965				
	435 961	7 299 965	34	ABP21308-TR14-120	Sandy mud/muddy sand with occasional cobbles and coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea), redfish (Sebastidae). Faunal burrows
	435 971	7 299 932				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 971	7 299 932	20	ABP21308-TR14-121 – ABP21308-TR14-125	Coral rubble, cobbles and sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), sea cucumber (Holothuroidea), redfish (Sebastidae)
	435 974	7 299 912				
	435 974	7 299 912	19	ABP21308-TR14-126 – ABP21308-TR14-141	Dead coral framework	Cold-water coral (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea* and *Primnoa resedaeformis*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), soft coral (Alcyonacea), file shells (*Acesta excavata*), anenome (Actiniaria), crab (Brachyura)
	435 970	7 299 893				
	435 970	7 299 893	45	ABP21308-TR14-142 – ABP21308-TR14-144	Sandy mud/muddy sand with a few cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), fish (Pisces), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), greater forkbeard (*Phycis blennoides*). Faunal burrows
	435 928	7 299 878				
	435 928	7 299 878	16	ABP21308-TR14-145 – ABP21308-TR14-148	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), squat lobster (Galatheoidea), redfish (Sebastidae), anemone (Actiniaria)
	435 912	7 299 877				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 912	7 299 877	22	ABP21308-TR14-149	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), fish (Pisces). Faunal burrows and mounds
	435 898	7 299 860				
	435 898	7 299 860	20	ABP21308-TR14-150 – ABP21308-TR14-151	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), anemone (Actiniaria). Faunal mounds
	435 888	7 299 843				
	435 888	7 299 843	16	ABP21308-TR14-152	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), greater forkbeard (*Phycis blennoides*), squat lobster (Galatheoidea), starfish (Asteroidea). Faunal burrows
	435 879	7 299 830				
	435 879	7 299 830	159	ABP21308-TR14-153 – ABP21308-TR14-171	Sandy mud/muddy sand with cobbles and small boulders and occasional coral rubble	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima paupertas*), gorgonian coral (*Paragorgia arborea*), anenome (Actiniaria), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), starfish (Asteroidea), saithe (*Pollachius virens*), tusk (*Brosme brosme*), silvery pout (*Gadiculus argenteus*). Faunal burrows
	435 795	7 299 695				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 795	7 299 695	24	ABP21308-TR14-172	Sandy mud/muddy sand	Sponges (Porifera: erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), starfish (Asteroidea), sea cucumber (*Parastichops tremulus*). Faunal mounds and burrows
	435 776	7 299 680				
	435 776	7 299 680	25	ABP21308-TR14-173 – ABP21308-TR14-178	Sandy mud/muddy sand with some cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), anemone (Actiniaria), saithe (*Pollachius virens*). Faunal burrows
	435 759	7 299 662				
	435 759	7 299 662	146	ABP21308-TR14-179 – ABP21308-TR14-191	Sandy mud/muddy sand with patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), tube dwelling anemone (Ceriantharia), redfish (Sebastidae), sea cucumber (Holothuroidea including *Parastichops tremulus*), starfish (Asteroidea), cushion stars (Valvatida), rabbit fish (*Chimaera montrosa*), squat lobster (Galatheoidea), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), flatfish (Pleuronectiformes). Faunal burrows and mounds
	435 670	7 299 546				
	435 670	7 299 546	37	ABP21308-TR14-192 – ABP21308-TR14-194	Sandy mud/muddy sand with some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), tube dwelling anemone (Ceriantharia). Faunal burrows and mounds
	435 651	7 299 514				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 651	7 299 514	87	ABP21308-TR14-195 – ABP21308-TR14-204	Sandy mud/muddy sand with some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), tube dwelling anemone (Ceriantharia), starfish (Asteroidea). Faunal burrows and mounds
	435 598	7 299 445				
	435 598	7 299 445	50	ABP21308-TR14-205 – ABP21308-TR14-208	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), fish (Pisces), hermit crab (Paguridae). *Nephrops norvegicus* burrows, faunal mounds and burrows
	435 568	7 299 405				
	435 568	7 299 405	60	ABP21308-TR14-209 – ABP21308-TR14-216	Sandy mud/muddy sand with some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (Holothuroidea including *Parastichops tremulus*), cushion stars (Valvatida), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*). Faunal burrows
	435 534	7 299 355				
	435 534	7 299 355	44	ABP21308-TR14-217	Sandy mud/muddy sand with occasional patch of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), fish (Pisces), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*). Faunal mounds and burrows
	435 509	7 299 319				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 509	7 299 319	6	ABP21308-TR14-218	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima paupertas*), sea cucumber (*Parastichops tremulus*). Faunal burrows
	435 505	7 299 314				
	435 498	7 299 303	45	ABP21308-TR14-219 – ABP21308-TR14-223	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), squat lobster (Galatheoidea). *Nephrops norvegicus* burrows, faunal mounds and burrows. Anthropogenic debris - rope
	435 472	7 299 266				
	435 472	7 299 266	15	-	Sandy mud/muddy sand with some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea), redfish (Sebastidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal mounds and burrows
	435 463	7 299 254				
	435 463	7 299 254	40	ABP21308-TR14-224 – ABP21308-TR14-232	Sandy mud/muddy sand with patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea including *Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). *Nephrops norvegicus* burrows, faunal mounds and burrows
	435 441	7 299 221				

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Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 441	7 299 221	65	ABP21308-TR14-233 – ABP21308-TR14-240	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Stylocordyla borealis, Axinellidae and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), silvery pout (Gadiculus argenteus), starfish (Asteroidea), flatfish (Pleuronectiformes). Nephrops norvegicus burrows, faunal mounds and burrows
	435 402	7 299 169				
	435 402	7 299 169	34	ABP21308-TR14-241 – ABP21308-TR14-248	Sandy mud/muddy sand with some cobbles and boulders, one small patch of Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima paupertas*.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae), anemone (Actiniaria), cushion star (?*Porania pulvillus*)
	435 382	7 299 141				
	435 382	7 299 141	35	ABP21308-TR14-249 – ABP21308-TR14-251	Sandy mud/muddy sand	Sponges (Porifera: *Stylocordyla borealis*, Axinellidae and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*). *Nephrops norvegicus* burrows, faunal mounds and burrows
	435 362	7 299 112				
	435 362	7 299 112	36	ABP21308-TR14-252 – ABP21308-TR14-264	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including Hymedesima paupertas), redfish (Sebastidae), rabbit fish (*Chimaera monstrosa*)
	435 341	7 299 083				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 341	7 299 083	113	ABP21308-TR14-265 – ABP21308-TR14-275	Sandy mud/muddy sand with one small patch of cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). *Nephrops norvegicus* burrows, faunal mounds and burrows
	435 276	7 298 990				
ABP21308-TR15	435 654	7 298 347	32	ABP21308-TR15-002 – ABP21308-TR15-003	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (Actiniaria incl. ?*Actinostola callosa*), starfish (Asteroidea), redfish (Sebastidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), fish (Pisces)
	435 681	7 298 331				
	435 681	7 298 331	13	ABP21308-TR15-004	Sandy mud/muddy sand	Sponges (Porifera inc. mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	435 689	7 298 321				
	435 689	7 298 321	43	ABP21308-TR15-005 – ABP21308-TR15-012	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp., Mycale lingua,* ?Polymastidae, and encrusting forms including *Hymedesmia paupertas*), glass sponges *(Asconema sp.*), gorgonian corals (*Paragorgia arborea*), sea cucumbers (*Parastichopus tremulus*), anemones (Actiniaria inc. *Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens),* ling (*Molva molva*), tusk *(Brosme brosme*), redfish (Sebastidae)
	435 730	7 298 308				
	435 730	7 298 308	34	ABP21308-TR15-013 – ABP21308-TR15-019	Sandy mud/muddy sand with some cobbles and pebbles	Sponges (Porifera inc. mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), tube building anemones (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	435 749	7 298 337				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 749	7 298 337	12	ABP21308-TR15-020 – ABP21308-TR15-023	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp., Mycale lingua,* and encrusting forms including *Hymedesmia paupertas*), glass sponges (*?Asconema* sp.), anemones (Anthozoa inc. *Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces)
	435 758	7 298 344				
	435 758	7 298 344	203	ABP21308-TR15-024 – ABP21308-TR15-031	Sandy mud/muddy sand with a patch of cobbles/small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), sea pen (Pennatulacea inc. *Virgularia sp.*), shrimp (Caridea), crab (Brachyura), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae), fish (Pisces). Faunal burrows
	435 960	7 298 364				
	435 960	7 298 364	45	ABP21308-TR15-032 – ABP21308-TR15-039	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and encrusting forms including *Hymedesmia paupertas),* starfish (Asteroidea), cushion star (?*Ceramaster granularis),* sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 004	7 298 375				
	436 004	7 298 375	59	ABP21308-TR15-040 – ABP21308-TR15-043	Sandy mud with a patch of cobbles/small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua,* Geodiidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens)*
	436 062	7 298 382				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 062	7 298 382	29	ABP21308-TR15-044 – ABP21308-TR15-046	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Asteroidea), sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 092	7 298 384				
	436 092	7 298 384	22	ABP21308-TR15-047 – ABP21308-TR15-048	Sandy mud/muddy sand with a few small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 113	7 298 387				
	436 113	7 298 387	35	ABP21308-TR15-049 – ABP21308-TR15-055	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae), sea cucumber (*Parastichopus tremulus*), redfish (Sebastidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 147	7 298 395				
	436 147	7 298 395	40	ABP21308-TR15-056 – ABP21308-TR15-057	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe inc. *Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	436 181	7 298 416				
	436 181	7 298 416	19	ABP21308-TR15-058	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 181	7 298 397				
	436 181	7 298 397	35	ABP21308-TR15-059 – ABP21308-TR15-062	Sandy mud/muddy sand with a few cobbles/small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and Geodiidae), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae). Faunal burrows
	436 216	7 298 403				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 216	7 298 403	25	ABP21308-TR15-063 – ABP21308-TR15-064	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 241	7 298 405				
	436 241	7 298 405	63	ABP21308-TR15-065 – ABP21308-TR15-069	Sandy mud/muddy sand with a few cobbles/small boulders	Sponges (Porifera including *Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows.
	436 304	7 298 414				
	436 304	7 298 414	68	ABP21308-TR15-070 – ABP21308-TR15-076	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* starfish (Asteroidea), cushion stars (*Ceramaster granularis*), anemones (Actiniaria), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 371	7 298 423				
	436 371	7 298 423	68	ABP21308-TR15-077 – ABP21308-TR15-084	Sandy mud/muddy sand with small boulder	Sponges (Porifera: massive/erect/branching forms and encrusting forms), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponges (*Asconema* sp.), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	436 438	7 298 432				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 438	7 298 432	142	ABP21308-TR15-085 – ABP21308-TR15-120	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms), gorgonian corals (*Paragorgia arborea*), anemones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), sea urchin (Echinoidea), pencil urchin (*Cidaris cidaris*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	436 581	7 298 429				
	436 581	7 298 429	10	-	Sandy mud/muddy sand	Sponges (Porifera), starfish (Asteroidea), cushion star (?*Ceramaster granularis*), soft corals (Alcyonacea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 577	7 298 438				
	436 577	7 298 438	8	ABP21308-TR15-121	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., Geodiidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 573	7 298 445				
	436 573	7 298 445	9	-	Sandy mud/muddy sand with a few cobbles and pebbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., ?Polymastidae, mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	436 580	7 298 452				
	436 580	7 298 452	44	ABP21308-TR15-122 – ABP21308-TR15-127	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (?*Actinostola callosa),* sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 623	7 298 458				
	436 623	7 298 458	34	ABP21308-TR15-005 – ABP21308-TR15-132	Sandy mud/muddy sand sand with a few cobbles/small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.,). mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	436 657	7 298 462				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 657	7 298 462	55	ABP21308-TR15-133 – ABP21308-TR15-136	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., Geodiidae), anemones (Actiniaria inc. *?Actinostola callosa*), gadoid fish (Gadidae), saithe *Pollachius virens*), redfish (Sebastidae)
	436 711	7 298 471				
	436 711	7 298 471	83	ABP21308-TR15-137 – ABP21308-TR15-146	Sandy mud/muddy sand with some cobbles/small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., and encrusting forms including *Hymedesmia paupertas),* sea cucucmbers (*Parastichopus tremulus*), starfish (*Henricia sp.*), anemones (Ceriantharia), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	436 794	7 298 482				
	436 794	7 298 482	7	ABP21308-TR15-147	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *?Antho dichotoma* and encrusting forms including *Hymedesmia paupertas),* gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 800	7 298 482				
	436 800	7 298 482	17	ABP21308-TR15-148	Sandy mud/muddy sand with a few cobbles and pebbles	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae). Faunal burrows
	436 818	7 298 483				
	436 818	7 298 483	8	ABP21308-TR15-149 – ABP21308-TR15-153	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., and encrusting forms including *?Aplysilla sulfurea),* glass sponges (*Asconema* sp.,), shrimp (Caridea), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 825	7 298 486				
	436 825	7 298 486	9	-	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 834	7 298 486				
	436 834	7 298 486	17	ABP21308-TR15-154	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* sea cucumber (*Parastichopus tremulus*), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 850	7 298 490				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 850	7 298 490	33	ABP21308-TR15-155 – ABP21308-TR15-158	Sandy mud/muddy sand with some cobbles and pebbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.). mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 883	7 298 492				
	436 883	7 298 492	69	ABP21308-TR15-159 – ABP21308-TR15-172	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including*Phakellia sp.*, *Mycale lingua, ?Antho dichotoma,* Geodiidae), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), anemones (?*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 935	7 298 539				
	436 935	7 298 539	14	-	Sandy mud/muddy sand with some pebbles and shell fragments	Sea cucumber (Holothuroidea inc. *Parastichopus tremulus*), gadoid fish (Gadidae inc. *Pollachius virens*), redfish (Sebastidae).
	436 944	7 298 528				
	436 944	7 298 528	20	ABP21308-TR15-173 – ABP21308-TR15-181	Sandy mud/muddy sand with dead coral framework and dead coral rubble, cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua* and encrusting forms), gorgonian corals (*Paragorgia arborea, ?Primnoa resedaeformis*), file shells (*Acesta escavata*), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 963	7 298 523				
	436 963	7 298 523	8	-	Sandy mud/muddy sand	Sponges (Porifera massive/erect/branching forms including Geodiidae, *Phakellia sp.*), cushion stars (*?Ceramaster granularis*), saithe (*Pollachius virens*)
	436 968	7 298 516				
	436 968	7 298 516	23	ABP21308-TR15-182 – ABP21308-TR15-184	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera massive/erect/branching forms including Geodiidae, *Phakellia sp., Mycale lingua, Antho dichotoma* and encrusting forms), redfish (Sebastidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 984	7 298 499				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 984	7 298 499	27	ABP21308-TR15-185 – ABP21308-TR15-186	Sandy mud/muddy sand with shell fragments	Sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	437 008	7 298 488				
	437 008	7 298 488	57	ABP21308-TR15-187 – ABP21308-TR15-201	Sandy mud/muddy sand with dead coral framework and dead coral rubble, cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., *Mycale lingua*, Geodiidae and encrusting forms including *Hymedesmia paupertas),* gorgonian corals (*Paragorgia arborea, Primnoa resedaeformis*), cold-water coral (*Desmophyllum pertusum*), file shells (*Acesta escavata*), sea cucumber (*Parastichopus treumulus*), sea urchin (Echinoidea), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	437 061	7 298 509				
	437 061	7 298 509	31	ABP21308-TR15-202 – ABP21308-TR15-206	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.,* Geodiidae), starfish (*Henricia sp.*), sea cucumbers (*Parastichopus treumulus*), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 085	7 298 529				
	437 085	7 298 529	13	ABP21308-TR15-207 – ABP21308-TR15-209	Sandy mud/muddy sand with dead coral framework, coral rubble, cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.,* Geodiidae), gorgonian coral (*Paragorgia arborea*), file shells (*Acesta escvata*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 097	7 298 535				
	437 097	7 298 535	35	ABP21308-TR15-210 – ABP21308-TR15-214	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Mycale lingua*, *Phakellia sp.,* Geodiidae), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 131	7 298 533				
	437 131	7 298 533	33	ABP21308-TR15-215	Sandy mud/muddy sand with some cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus treumulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 164	7 298 535				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	437 164	7 298 535	34	ABP21308-TR15-216 – ABP21308-TR15-220	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Mycale lingua*, *Phakellia sp.*, Geodiidae), starfish (*Henricia sp.*), anemones (*Actinostola callosa*), crab (Brachyura), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 198	7 298 535				
	437 198	7 298 535	59	ABP21308-TR15-221 – ABP21308-TR15-224	Sandy mud/muddy sand with some cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.*),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 256	7 298 545				
	437 256	7 298 545	8	ABP21308-TR15-225	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.,* and encrusting forms), anemone (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	437 264	7 298 547				
	437 264	7 298 547	18	-	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	437 281	7 298 552				
	437 281	7 298 552	21	ABP21308-TR15-226 – ABP21308-TR15-228	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., Geodiidae, and encrusting forms including *Hymedesmia paupertas),* cushion stars (*Ceramaster granularis*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	437 302	7 298 551				
	437 302	7 298 551	26	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	437 327	7 298 555				
	437 327	7 298 555	16	ABP21308-TR15-229 – ABP21308-TR15-231	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., Geodiidae), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 343	7 298 558				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	437 343	7 298 558	24	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Geodiidae), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	437 368	7 298 559				
	437 368	7 298 559	19	ABP21308-TR15-232	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.*, Geodiidae), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	437 387	7 298 562				
	437 387	7 298 562	27	-	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 413	7 298 566				
	437 413	7 298 566	17	ABP21308-TR15-233	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.*, Geodiidae, *Mycale lingua*), starfish (Asteroidea), anemones (*Actinostola callosa*), starfish (*Henricia sp.*), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 430	7 298 569				
	437 430	7 298 569	8	NA	Sandy mud/muddy sand	Starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	437 438	7 298 569				
	437 438	7 298 569	44	ABP21308-TR15-234 – ABP21308-TR15-235	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.*, Geodiidae, *Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (*Henricia sp.*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 482	7 298 574				
	437 482	7 298 574	41	ABP21308-TR15-236	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (*Ceramaster granularis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), rabbitfish (*Chimaera monstrosa*). Faunal burrows
	437 522	7 298 584				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	437 522	7 298 584	34	ABP21308-TR15-237	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., and encrusting forms including *Hymedesmia paupertas),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Asteroidea), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 556	7 298 578				
	437 556	7 298 578	34	ABP21308-TR15-238 – ABP21308-TR15-239	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.*),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), cushions stars (*Ceramaster granularis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 582	7 298 556				
	437 582	7 298 556	15	ABP21308-TR15-240	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.*),* gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 596	7 298 560				
	437 596	7 298 560	18	ABP21308-TR15-241	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 609	7 298 572				
	437 609	7 298 572	34	ABP21308-TR15-242 – ABP21308-TR15-245	Sandy mud/muddy sand with cobbles, boulders and dead coral rubble	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp., and encrusting forms), starfish (Asteroidea), anemone (*Actionstola callosa*), soft coral (Alcyonacea), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 637	7 298 592				
	437 637	7 298 592	11	ABP21308-TR15-246 – ABP21308-TR15-248	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*). Faunal burrows
	437 646	7 298 598				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
ABP21308-TR16	435 556	7 297 734	67	ABP21308-TR16-003 - ABP21308-TR16-008	Sandy mud/muddy sand	Sponges (Porifera including, *?Phakellia sp., Hymedesmia paupertas,* Geodiidae, *?Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), starfish (Asteroidea), ?krill (Euphausiacea), gadoid fish (Gadidae), saithe (*Pollachius virens),* fish (Pisces), catshark (*Galeus melastomus*). Faunal burrows
	435 616	7 297 705				
	435 616	7 297 705	8	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera including *Phakellia sp*., Geodiidae, *Mycale lingua*, and encrusting forms), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae)
	435 623	7 297 702				
	435 623	7 297 702	67	ABP21308-TR16-009 - ABP21308-TR16-11	Sandy mud/muddy sand with a patch of cobbles and boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), starfish (*Henricia sp.*), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	435 680	7 297 668				
	435 680	7 297 668	12	ABP21308-TR16-012 - ABP21308-TR16-015	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting forms), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 692	7 297 664				
	435 692	7 297 664	25	ABP21308-TR16-016 - ABP21308-TR16-19	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 715	7 297 654				
	435 715	7 297 654	9	ABP21308-TR16-020 - ABP21308-TR16-24	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. Geodiidae, *?Antho dichotoma, Phakellia sp., Mycale lingua, Hymedesmia paupertas,* encrusting forms), sea cucumber (*Parastichopus tremulus*), ?anemone (Anthozoa), squat lobsters (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 721	7 297 647				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 721	7 297 647	21	ABP21308-TR16-025	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 738	7 297 636				
	435 738	7 297 636	9	ABP21308-TR16-026 - ABP21308-TR16-27	Muddy sand/sandy mud with cobbles and boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting forms, *Hymedesmia paupertas*), ?anemones (Ceriantharia), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*
	435 746	7 297 633				
	435 746	7 297 633	21	ABP21308-TR16-028 - ABP21308-TR16-31	Sandy mud/muddy sand	Sponges (Porifera inc. Geodiidae, *Hymedesmia paupertas*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 765	7 297 623				
	435 765	7 297 623	17	ABP21308-TR16-032 - ABP21308-TR16-47	Sandy mud/muddy sand with dead coral framework and coral rubble	Cold-water corals (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea*), sponges (Porifera inc. *Mycale lingua,* Geodiidae, *Phakellia sp.,* ?*Antho dichotoma*), file shells (*Acesta escavata*), squat lobsters (Galatheoidea), starfish (Asteroidea), green spoon worm (*Bonella viridis*), saithe (*Pollachius virens*), redfish (Sebastidae)
	435 765	7 297 606				
	435 765	7 297 606	19	ABP21308-TR16-048 - ABP21308-TR16-51	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges, *Hymedesmia paupertas*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	435 758	7 297 589				
	435 758	7 297 589	15	ABP21308-TR16-052 - ABP21308-TR16-63	Sandy mud/muddy sand with dead coral framework and coral rubble	Cold-water coral (*Desmophyllum pertusum*), gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), sponges (Porifera inc. *Mycale lingua,* Geodiidae, *Phakellia sp.*), file shells (*Acesta escavata*), starfish (Asteroidea), sea urchin (Echinoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	435 762	7 297 574				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 762	7 297 574	16	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges), sea cucumber *Parastichopus tremulus*), krill (Euphausiacea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces)
	435 776	7 297 583				
	435 776	7 297 583	52	ABP21308-TR16-064 - ABP21308-TR16-67	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), shrimp (Caridea. Faunal burrows
	435 824	7 297 602				
	435 824	7 297 602	25	ABP21308-TR16-068 - ABP21308-TR16-77	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges, *Hymedesmia paupertas*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (*Actinostola callosa*), starfish (*Henricia sp.*), squat lobster (Galatheoidea), bryozoan (Bryozoa), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	435 844	7 297 587				
	435 844	7 297 587	5	-	Sandy mud/muddy sand	Sponges (Porifera inc. *Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435848	7297586				
	435 848	7 297 585	87	ABP21308-TR16-078 - ABP21308-TR16-102	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), squat lobster (Galatheoidea), sea cucumbers (*Parastichopus tremulus*), gorgonian coral (*Paragorgia arborea*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae)
	435 926	7 297 548				
	435 926	7 297 548	16	ABP21308-TR16-103 - ABP21308-TR16-104	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	435 941	7 297 542				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 941	7 297 542	10	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges, *Hymedesmia paupertas*), bryozoans (Bryozoa), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 949	7 297 537				
	435 949	7 297 537	39	ABP21308-TR16-105 - ABP21308-TR16-109	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	435 982	7 297 517				
	435 982	7 297 517	13	ABP21308-TR16-110 - ABP21308-TR16-113	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges, *Hymedesmia paupertas*), saithe (*Pollachius virens*), redfish (Sebastidae)
	435 994	7 297 512				
	435 994	7 297 512	87	ABP21308-TR16-114 - ABP21308-TR16-118	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?starfish (Asteroidea), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	436 070	7 297 470				
	436 070	7 297 470	32	ABP21308-TR16-119 - ABP21308-TR16-124	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges, *Hymedesmia paupertas*), anemones (Actiniaria), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 099	7 297 457				
	436 099	7 297 457	65	ABP21308-TR16-125 - ABP21308-TR16-134	Sandy mud/muddy sand with a few cobbles/small boulders	Sponges (Porifera inc. *?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?sea pens (*Virgularia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	436 156	7 297 426				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 156	7 297 426	39	ABP21308-TR16-135 - ABP21308-TR16-144	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges, *Hymedesmia paupertas,*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae).
	436 188	7 297 405				
	436 188	7 297 405	124	ABP21308-TR16-145 - ABP21308-TR16-156	Sandy mud/muddy sand with a couple of small boulders	Sponges (Porifera inc. *Phakellia sp.,* encrusting sponges, ?*Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), sea pens (*Virgularia sp.*), shrimp (Caridea), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae), fish (Pisces). Faunal burrows
	436 302	7 297 354				
	436 302	7 297 354	23	ABP21308-TR16-157 - ABP21308-TR16-158	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*, encrusting sponges, *Hymedesmia paupertas*), gadoid fish (Gadidae), saithe (*Pollachius virens)*
	436 321	7 297 342				
	436 321	7 297 342	156	ABP21308-TR16-159 - ABP21308-TR16-165	Sandy mud/muddy sand with a patch of cobbles/boulders and a few scattered boulders	Sponges (Porifera inc. *Phakellia sp.,* encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?anemone (Ceriantharia), shrimp (Caridea), cushion star (*Ceramaster granularis*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae)
	436 458	7 297 269				
	436 458	7 297 269	23	ABP21308-TR16-166 - ABP21308-TR16-168	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae)
	436 480	7 297 261				
	436 480	7 297 261	17	ABP21308-TR16-169 - ABP21308-TR16-170	Sandy mud/muddy sand	Sponges (Porifera inc. *Geodia sp., Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	436 494	7 297 250				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 494	7 297 250	16	ABP21308-TR16-171	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.,* Geodiidae, *Mycale lingua*), glass sponge (*Asconema* sp.), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 509	7 297 244				
	436 509	7 297 244	18	-	Sandy mud/muddy sand	Sponges (Porifera inc. *Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	436 525	7 297 235				
	436 525	7 297 235	27	ABP21308-TR16-172 - ABP21308-TR16-173	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges, *Hymedesmia paupertas*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 548	7 297 223				
	436 548	7 297 223	227	ABP21308-TR16-174 - ABP21308-TR16-183	Sandy mud/muddy sand with a patch of cobbles/boulders and single boulder	Sponges (Porifera inc. *Phakellia sp.,* encrusting sponges, *Mycale lingua, ?Antho dichotoma, Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), Norway lobster (*Nephrops norvegicus*), starfish (Asteroidea), pencil urchin (*Cidaris cidaris*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	436 750	7 297 120				
	436 750	7 297 120	54	ABP21308-TR16-184 - ABP21308-TR16-185	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*, encrusting sponges), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 799	7 297 097				
	436 799	7 297 097	19	ABP21308-TR16-186 - ABP21308-TR16-187	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	436 814	7 297 086				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 814	7 297 086	18	ABP21308-TR16-188 - ABP21308-TR16-190	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*, encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), krill (Euphausiacea), gadoid fish (Gadidae), saithe (*Pollachius virens*).
	436 830	7 297 078				
	436 830	7 297 078	24	ABP21308-TR16-191	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae). Faunal burrows
	436 852	7 297 069				
	436 852	7 297 069	29	ABP21308-TR16-192 - ABP21308-TR16-193	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.,* Geodiidae, encrusting sponges, *Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Anthropogenic waste
	436 877	7 297 056				
	436 877	7 297 056	35	-	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera inc. *Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae). Faunal burrows
	436 906	7 297 037				
	436 906	7 297 037	23	ABP21308-TR16-194 - ABP21308-TR16-204	Dead coral framework with dead coral rubble, sandy mud, cobbles and boulders	Gorgonian coral (*Paragorgia arborea*), sponges (Porifera inc. *Mycale lingua,* Geodiidae, *Phakellia sp.,?Antho dichotoma*), file shells (*Acesta escavata*), anemones (*Actinostola callosa*), starfish (*Henricia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens),* redfish (Sebastidae)
	436 893	7 297 019				
	436 893	7 297 019	21	ABP21308-TR16-205 - ABP21308-TR16-208	Sandy mud/muddy sand with cobbles and small boulders	Gorgonian coral (*Paragorgia arborea*), sponges (Porifera inc. encrusting sponges, *Mycale lingua*, Geodiidae, *Phakellia sp.*, Tethydae), snail (Gastropoda), green spoon worm (*Bonellia viridis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 902	7 297 000				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	436 902	7 297 000	10	ABP21308-TR16-209	Sandy mud/muddy sand	Sponges (Porifera inc. encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*). Faunal burrows
	436 903	7 297 010				
	436 903	7 297 010	21	-	Sandy mud/muddy sand with coral rubble, cobbles and boulders	Gorgonian coral (*Paragorgia arborea*), sponges (Porifera inc. *Mycale lingua*, Geodiidae, *Phakellia sp.),* sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	436 905	7 297 031				
	436 905	7 297 031	23	ABP21308-TR16-210 - ABP21308-TR16-271	Dead coral framework with coral rubble and sandy mud/muddy sand	Gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), cold-water coral (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua,* Geodiidae, *Phakellia sp.,?Antho dichotoma*), file shells (*Acesta escavata*), starfish (*Cermaster granularis, ?Henricia sp.*), snail (Buccinidae), squat lobster (Galatheoidea), anemone (*Actinostola callosa*), sea urchin (Echinoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), ?tusk (*Brosme brosme*), redfish (Sebastidae), ?gurnard (Triglidae)
	436 928	7 297 027				
	436 928	7 297 027	20	ABP21308-TR16-272 - ABP21308-TR16-278	Sandy mud/muddy sand with cobbles, small boulders and coral rubble	Gorgonian coral (Alcyonacea inc. *Paragorgia arborea*), sponges (Porifera inc. *Mycale lingua*, Geodiidae, *Phakellia sp.),* sea cucumber (*Parastichopus tremulus*), squat lobster (Galatheoidea), sea urchin (Echinoidea), starfish (Asteroidea), krill (Euphausiacea), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	436 946	7 297 019				
	436 946	7 297 019	158	ABP21308-TR16-279 - ABP21308-TR16-297	Sandy mud/muddy sand with a patch of cobbles/boulders and a few single boulders	Sponges (Porifera inc. encrusting sponges, Geodiidae, *Phakellia sp., Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?anemone (Ceriantharia), squat lobster (Galatheoidea), krill (Euphausiacea), gadoid fish (Gadidae), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), redfish (Sebastidae)
	437 087	7 296 945				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	437 087	7 296 945	30	ABP21308-TR16-298 - ABP21308-TR16-299	Sandy mud/muddy sand with cobbles, small boulders and coral rubble	Sponges (Porifera inc. *Mycale lingua*, Geodiidae, *Phakellia sp.*), anemone (Actiniaria inc. *?Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 113	7 296 932				
	437 113	7 296 932	164	ABP21308-TR16-300 - ABP21308-TR16-311	Sandy mud/muddy sand with a few cobbles/small boulders	Sponges (Porifera inc. *Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), sea pens (*Virgularia sp.*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	437 258	7 296 855				
	437 258	7 296 855	86	ABP21308-TR16-312 - ABP21308-TR16-320	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Mycale lingua*, *Phakellia sp.*, *?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa,* Ceriantharia), sea cucumbers (*Parastichopus tremulus*), starfish (Poraniidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	437 336	7 296 818				
ABP21308-TR17	436 012	7 295 513	65	ABP21308-TR17-001 - ABP21308-TR17-003	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), tusk (*Brosme brosme*), redfish (Sebastidae), anemone (Actiniaria), faunal burrows
	435 949	7 295 498				
	435 949	7 295 498	9	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), fish (Pisces), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 943	7 295 505				
	435 943	7 295 505	42	ABP21308-TR17-004 - ABP21308-TR17-007	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), redfish (Sebastidae), squat lobster (Galatheoidea), sea cucumber (Holothuroidea including *Parastichops tremulus*), silvery pout (*Gadiculus argenteus*), faunal burrows
	435 944	7 295 547				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 944	7 295 547	17	ABP21308-TR17-008	Gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), starfish (*Henricia* sp.), silvery pout (*Gadiculus argenteus*), faunal burrows
	435 937	7 295 562				
	435 937	7 295 562	47	ABP21308-TR17-009 - ABP21308-TR17-023	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), redfish (Sebastidae), tusk (*Brosme brosme*), silvery pout (*Gadiculus argenteus*), fish (Pisces), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), faunal mounds and burrows
	435 917	7 295 605				
	435 917	7 295 605	18	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), silvery pout (*Gadiculus argenteus*), faunal burrows and mounds
	435 910	7 295 622				
	435 910	7 295 622	31	ABP21308-TR17-024 - ABP21308-TR17-028	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), redfush (Sebastidae)
	435 891	7 295 647				
	435 891	7 295 647	35	ABP21308-TR17-029 - ABP21308-TR17-033	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), fish (Pisces including Gadidae), flatfish (Pleuronectiformes), tusk (*Brosme brosme*), faunal burrows
	435 887	7 295 682				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 887	7 295 682	9	ABP21308-TR17-034	Gravelly sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), ?haddock (*Melanogrammus aeglefinus*), faunal burrows
	435 886	7 295 691				
	435 886	7 295 691	79	ABP21308-TR17-035 - ABP21308-TR17-042	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), anemone (Actiniaria), fish (?Lotidae), starfish (*Porania* sp.), anemone (Actiniaria), faunal mounds and burrows
	435 856	7 295 764				
	435 856	7 295 764	11	ABP21308-TR17-043	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), faunal mounds and burrows
	435 849	7 295 772				
	435 849	7 295 772	33	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), anemone (Actiniaria), silvery pout (*Gadiculus argenteus*), fish (Gadidae), sea cucumber (*Parastichops tremulus*), faunal burrows and mounds
	435 827	7 295 796				
	435 827	7 295 796	57	ABP21308-TR17-044 - ABP21308-TR17-047	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), flatfish (Pleuronectiformes), sea cucumber (Holothuroidea including *Parastichops tremulus*), starfish (Valvatida), silvery pout (*Gadiculus argenteus*), faunal mounds and burrows
	435 798	7 295 845				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 798	7 295 845	17	ABP21308-TR17-048	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), anemone (Aciniaria), silvery pout (*Gadiculus argenteus*), faunal burrows
	435 791	7 295 860				
	435 791	7 295 860	12	ABP21308-TR17-049	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (*Patastichops tremulus*), faunal burrows
	435 786	7 295 871				
	435 786	7 295 871	16	ABP21308-TR17-050	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.e), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), fish (Pisces), tube dwelling anenome (Ceriantharia)
	435 779	7 295 885				
	435 779	7 295 885	35	ABP21308-TR17-051 - ABP21308-TR17-052	Sandy mud/muddy sand with one small patch of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (Holothuroidea including *Parastichops tremulus*), starfish (Valvatida and Solasteridae), faunal burrows
	435 762	7 295 916				
	435 762	7 295 916	12	ABP21308-TR17-053 - ABP21308-TR17-054	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), feather star (Crinoidea), faunal burrows
	435 757	7 295 927				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 757	7 295 927	12	-	Gravelly sandy mud/muddy sand with occasional pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), faunal burrows
	435 753	7 295 938				
	435 753	7 295 938	93	ABP21308-TR17-055 - ABP21308-TR17-057	Gravelly sandy mud/muddy sand with patches of sparse cobbles and occasional boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including Hymedesima sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), silvery pout (*Gadiculus argenteus*), tube dwelling anenome (Ceriantharia), fish (Pisces), faunal burrows and mounds
	435 713	7 296 022				
	435 713	7 296 022	21	ABP21308-TR17-058	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), silvery pout (*Gadiculus argenteus*), redfish (Sbeastidae), fish (Pisces), faunal burrows
	435 704	7 296 041				
	435 704	7 296 041	13	ABP21308-TR17-059	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including Hymedesima sp.), squat lobster (Galatheoidea), redfish (Sebastidae), tusk (*Brosme brosme*), faunal burrows
	435 698	7 296 053				
	435 698	7 296 053	12	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), ?haddock (*Melanogrammus aeglefinus*), faunal burrows and mounds
	435 694	7 296 064				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 694	7 296 064	34	ABP21308-TR17-060 - ABP21308-TR17-062	Sandy mud/muddy sand with cobbles and occasional boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including Hymedesima sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), tube dwelling anenome (Ceriantharia), anemone (Actiniaria), faunal burrows and mounds
	435 680	7 296 095				
	435 680	7 296 095	13	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), faunal burrows and mounds
	435 674	7 296 107				
	435 674	7 296 107	11	ABP21308-TR17-063	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including Hymedesima sp.), squat lobster (Galatheoidea)
	435 669	7 296 117				
	435 669	7 296 117	47	-	Sandy mud/muddy sand with occasional cobbles / small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (Holothuroida including *Parastichops tremulus*), redfish (Sebastidae), ?haddock (*Melanogrammus aeglefinus*), fish (Pisces), faunal burrows and mounds
	435 647	7 296 159				
	435 647	7 296 159	14	ABP21308-TR17-064	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), anemone (Actiniaria), faunal burrows
	435 642	7 296 172				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 642	7 296 172	11	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), faunal burrows and mounds
	435 638	7 296 182				
	435 638	7 296 182	19	ABP21308-TR17-065	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), spoon worm (*Bonellia viridis*), gorgonian coral (*Paragorgia aborea*), sea cucumber (*Parastichops tremulus*)
	435 630	7 296 199				
	435 630	7 296 199	61	ABP21308-TR17-066	Sandy mud/muddy sand with a few small patches of cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), sea cucumber (Holothuroida including *Parastichops tremulus*), faunal burrows
	435 603	7 296 254				
	435 603	7 296 254	9	ABP21308-TR17-067	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), spoon worm (*Bonellia viridis*), anemone (Actiniaria)
	435 600	7 296 262				
	435 600	7 296 262	94	ABP21308-TR17-068 - ABP21308-TR17-071	Sandy mud/muddy sand with a couple small patches of cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus)*, monkfish (*Lophius piscatorius*), faunal burrows and mounds
	435 558	7 296 346				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 558	7 296 346	25	ABP21308-TR17-072	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus*), starfish (Porania sp.), faunal burrows
	435 548	7 296 369				
	435 548	7 296 369	23	ABP21308-TR17-073	Sandy mud/muddy sand	Sponges (Porifera: *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 539	7 296 390				
	435 539	7 296 390	11	ABP21308-TR17-074 - ABP21308-TR17-075	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), anemone (Actiniaria), sea cucmber (*Parastichops tremulus*), faunal burrows
	435 533	7 296 399				
	435 533	7 296 399	26	-	Sandy mud/muddy sand with a small patch of cobbles	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus*), faunal burrows and mounds
	435 523	7 296 423				
	435 523	7 296 423	12	ABP21308-TR17-076 - ABP21308-TR17-079	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 519	7 296 434				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 519	7 296 434	12	ABP21308-TR17-080	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis* and *Mycale lingua*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), redfish (Sebastidae), tusk (*Brosme brosme*), faunal burrows
	435 512	7 296 444				
	435 512	7 296 444	16	ABP21308-TR17-081	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), saithe (*Pollachius virens*), spoon worm (*Bonellia viridis*), redfish (Sebastidae)
	435 504	7 296 458				
	435 504	7 296 458	58	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Mycale lingua* and mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces), starfish (Valvatida), faunal burrows
	435 479	7 296 510				
	435 479	7 296 510	25	ABP21308-TR17-082	Sandy mud/muddy sand with sparse cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*)
	435 469	7 296 533				
	435 469	7 296 533	157	ABP21308-TR17-083 - ABP21308-TR17-085	Sandy mud/muddy sand with occasional cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), redfish (Sebastidae), ling (*Molva molva*), flatfish (Pleuronectiformes), shrimps (Caridea), rabbit fish (Chimaeridae), faunal burrows and mounds
	435 398	7 296 673				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 398	7 296 673	17	ABP21308-TR17-086 - ABP21308-TR17-089	Dead coral framework with sandy mud/muddy sand and some cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesima* sp.), redfish (Sebastidae), squat lobster (Galatheoidea), anemone (Actiniaria), crab (Brachyura), cold water coral (*Desmophyllum pertusum*), starfish (Valvatida), tusk (*Brosme brosme*), giant fileshell (*Acesta excavata*), gorgonian (*Paragorgia aborea*), ling (*Molva molva*)
	435 389	7 296 687				
	435 389	7 296 687	8	ABP21308-TR17-090	Sandy mud/muddy sand	Sponges (Porifera: *Stylocordyla borealis*), redfish (Sebastidae), faunal burrows
	435 393	7 296 694				
	435 393	7 296 694	30	ABP21308-TR17-091 - ABP21308-TR17-096	Sandy mud/muddy sand with cobbles and boulders with a couple patches of dead coral framework	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), cold water coral (*Desmophyllum pertusum*), giant fileshell (*Acesta excavata*), gorgonian (*Paragorgia aborea*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), anemone (Actiniaria), sea cucumber (Holothuroidea including *Parastichops tremulus*), squat lobster (Galatheoidea), spoon worm (*Bonellia viridis*), faunal burrows
	435 407	7 296 720				
	435 407	7 296 720	17	-	Sandy mud/muddy sand	Sponges (Porifera: *Stylocordyla borealis* and mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Valvatida), squat lobster (Galatheoidea), faunal burrows
	435 390	7 296 721				
	435 390	7 296 721	18	ABP21308-TR17-097 - ABP21308-TR17-100	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), redfish (Sebastidae), faunal burrows
	435 375	7 296 731				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 375	7 296 731	157	ABP21308-TR17-101 - ABP21308-TR17-103	Sandy mud/muddy sand with a couple small patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), ling (*Molva molva*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), rabbit fish (Chimaeridae), squat lobster (Galatheoidea), anemone (Actiniaria), tube dwelling anenome (Ceriantharia), sea cucmber (*Parastichops tremulus*), shrimps (Caridea), faunal burrows and mounds. Anthropogenic debris - plastic packet
	435 305	7 296 871				
	435 305	7 296 871	51	ABP21308-TR17-104	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), squat lobster (Galatheoidea), ling (*Molva molva*), saithe (*Pollachius virens*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), tube dwelling anenome (Ceriantharia), starfish (Valvatida), faunal burrows
	435 284	7 296 918				
	435 284	7 296 918	35	ABP21308-TR17-105	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), ling (*Molva molva*), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), faunal burrows
	435 267	7 296 949				
	435 267	7 296 949	9	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), anemone (Actiniaria), faunal burrows
	435 262	7 296 957				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 262	7 296 957	9	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*)
	435 259	7 296 965				
	435 259	7 296 965	20	ABP21308-TR17-106 - ABP21308-TR17-121	Sandy mud/muddy sand with cobbles and boulders and one small patch of dead coral framework	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (Pollachius virens), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), anemone (Actiniaria), gorognian coral (*Paragorgia aborea*), faunal burrows and mounds
	435 239	7 296 963				
	435 239	7 296 963	7	ABP21308-TR17-122 - ABP21308-TR17-127	Dead coral framework	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), ling (*Molva molva*), gorgonian coral (*Paragorgia aborea*), soft coral (*Primnoa resedaeformis*), cold-water coral (*Desmophyllum pertusum*), giant file shell (Acesta excavata), feather star (Crinoidea), anemone (Actiniaria), sea cucumber (*Parastichops tremulus*)
	435 240	7 296 970				
	435 240	7 296 970	25	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), ling (*Molva molva*), gorgonian coral (*Paragorgia aborea*), anemone (Actiniaria), sea cucumber (*Parastichops tremulus*),
	435 249	7 296 993				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 249	7 296 993	29	-	Sandy mud/muddy sand with a few small cobbles	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), ling (*Molva molva*), hermit crab (Paguroidea), squat lobster (Galatheoidea), starfish (Valvatida), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 236	7 297 019				
	435 236	7 297 019	9	ABP21308-TR17-128	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae), squat lobster (Galatheoidea), anemone (Actiniaria), faunal burrows
	435 232	7 297 027				
	435 232	7 297 027	40	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), ling (*Molva molva*), flatfish (Pleuronectiformes) squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), starfish (Valvatida), faunal burrows and mounds
	435 214	7 297 063				
	435 214	7 297 063	12	ABP21308-TR17-129	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Stylocordyla borealis, Axinellidae, Asconema and Phakellia sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (Pollachius virens), ling (*Molva molva*), faunal burrows and mounds
	435 211	7 297 075				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 211	7 297 075	24	ABP21308-TR17-130 - ABP21308-TR17-131	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), ling (*Molva molva*), squat lobster (Galatheoidea), faunal burrows and mounds
	435 201	7 297 097				
	435 201	7 297 097	16	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), ling (*Molva molva*), redfish (Sebastidae), squat lobster (*Parastichops tremulus*), faunal burrows
	435 192	7 297 110				
	435 192	7 297 110	13	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), ling (*Molva molva*), fish (Pisces), squat lobster (Galatheoidea), faunal burrows
	435 187	7 297 122				
	435 187	7 297 122	11	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), sea cucumber (*Parastichops tremulus*)
	435 182	7 297 131				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 182	7 297 131	31	-	Sandy mud/muddy sand with occasional cobble and small boulder	Sponges (Porifera: branching forms including *Stylocordyla borealis*, Axinellidae and mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), tube dwelling anenome (Ceriantharia), faunal burrows
	435 168	7 297 159				
	435 168	7 297 159	15	-	Sandy mud/muddy sand with cobbles and boulders and a small patch of just sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), squat lobster (*Gadiculus argenteus*), starfish (*Porania* sp.), faunal burrows
	435 160	7 297 172				
	435 160	7 297 172	14	-	Sandy mud/muddy sand with cobbles, boulder and small patch of coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), redfish (Sebastidae), squat lobster (Galatheoidea), spoon worm (*Bonellia viridis*), faunal burrows
	435 154	7 297 185				
	435 154	7 297 185	2	-	Sandy mud/muddy sand a couple boulders	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), sea cucumber (*Parastichops tremulus*), squat lobster (Galatheoidea), anemone (Actiniaria), faunal burrows
	435 156	7 297 184				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 156	7 297 183	2	-	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), squat lobster (Galatheoidea)
	435 155	7 297 185				
	435 155	7 297 185	32	ABP21308-TR17-132	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including *Stylocordyla borealis*, Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), faunal mounds and burrows
	435 123	7 297 190				
	435 123	7 297 190	28	ABP21308-TR17-133 - ABP21308-TR17-140	Sandy mud/muddy sand with cobbles and small boulders with patches of coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), ling (*Molva molva*), redfish (Sebastidae), squat lobster (Galatheoidea), tube dwelling anenome (Ceriantharia), sea cucumber (*Parastichops tremulus*), anemone (Actiniaria), fish (Pisces), faunal burrows
	435 114	7 297 216				
	435 114	7 297 216	19	ABP21308-TR17-141	Sandy mud/muddy sand with small amount of coral rubble	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), ling (*Molva molva*), redfish (Sebastidae), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 127	7 297 230				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 127	7 297 230	27	ABP21308-TR17-142	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), ling (*Molva molva*), redfish (Sebastidae), squat lobster (Galatheoidea), starfish (Valvatida), faunal burrows
	435 142	7 297 252				
	435 142	7 297 252	13	ABP21308-TR17-143 - ABP21308-TR17-147	Dead coral framework with some patches of sandy mud/muddy sand	Gorgonian corals (*Paragorgia aborea*, *Primnoa resedaeformis*), cold water coral (*Desmophyllum pertusum*), giant fileshell (*Acesta excavata*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*), redfish (Sebastidae), ling (*Molva molva*), starfish (Valvatida)
	435 132	7 297 260				
	435 132	7 297 260	22	-	Sandy mud/muddy sand with some gravel	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Myclae* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), fish (Pisces), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 112	7 297 270				
	435 112	7 297 270	13	ABP21308-TR17-148 - ABP21308-TR17-149	Sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), anemone (Actiniaria), hermit crab (Paguridae), squat lobster (Galatheoidea), redfish (Sebastidae)
	435 107	7 297 282				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	435 107	7 297 282	15	ABP21308-TR17-150	Sandy mud/muddy sand with one small boulder	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), squat lobster (Galatheoidea), sea cucumber (*Parastichops tremulus*), faunal burrows
	435 102	7 297 296				
ABP21308-TR18	434 343	7 297 251	23	ABP21308-TR18-002 - ABP21308-TR18-003	Sandy mud/muddy sand	Sponges (Porifera inc. mud-covered sponges, ?Tethydae, yellow sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (Holothuroidea inc. *Parastichopus tremulus*), squat lobster (Galatheoidea), shrimp (Caridea), starfish (Asteroidea), ?sea squirt (Ascidiacea), gadoid fish (Gadidae inc. *Pollachius virens*), burrows
	434 333	7 297 230				
	434 333	7 297 230	13	ABP21308-TR18-004 - ABP21308-TR18-005	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.*, Geodiidae), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), burrows
	434 327	7 297 218				
	434 327	7 297 218	50	ABP21308-TR18-006	Sandy mud/muddy sand with small boulder	Sponges (Porifera inc. *Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), burrows
	434 312	7 297 171				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 312	7 297 171	73	ABP21308-TR18-007 - ABP21308-TR18- 17	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), gorgonian coral (*Paragorgia arborea*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 280	7 297 106				
	434 280	7 297 106	24	-	Sandy mud/muddy sand with a few boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua),* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	434 283	7 297 081				
	434 283	7 297 081	28	ABP21308-TR18-018 - ABP21308-TR18-019	Dead coral framework with dead coral rubble and sandy mud	Gorgonian coral (*Paragorgia arborea*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua, Geodia sp., Phakellia sp.*), file shells (*Acesta escavata*), starfish (Asteroidea inc. ?Poraniidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	434 272	7 297 056				
	434 272	7 297 056	38	ABP21308-TR18-020 - ABP21308-TR18-021	Sandy mud/muddy sand with cobbles, small boulders and coral rubble	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*, encrusting sponges), anemones (*Actinostola callosa*), gorgonian coral (*Paragorgia arborea*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	434 262	7 297 019				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 262	7 297 019	47	ABP21308-TR18-022	Sandy mud/muddy sand with a few boulders	Sponges (Porifera inc. *Phakellia sp., Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), anemone (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	434 245	7 296 975				
	434 245	7 296 975	101	ABP21308-TR18-023 - ABP21308-TR18-028	Sandy mud/muddy sand with cobbles, small boulders and dead coral rubble	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges), anemones (*Actinostola callosa*), gogronian coral (*Paragorgia arborea*), starfish (Poraniidae), shrimp (Caridea), green spoon worm (*Bonellia viridis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), flatfish (Pleuronectiformes)
	434 256	7 296 874				
	434 256	7 296 874	24	ABP21308-TR18-029 - ABP21308-TR18-031	Dead coral framework with coral rubble and sandy mud with cobbles and small boulders	Gorgonian coral (*Paragorgia arborea, Primnoa redesaeformis*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua*, *Phakellia sp.,?Antho dichotoma*), file shells (*Acesta escavata*), ?squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 235	7 296 863				
	434 235	7 296 863	146	ABP21308-TR18-032 - ABP21308-TR18-034	Sandy mud/muddy sand with a few patches of cobbles/small boulders and single boulders	Sponges (Porifera inc. *Geodia sp., Phakellia sp?Stylocordyla borealis, Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), anemone (*Actinostola callosa*), starfish (*Ceramaster granularis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), burrows
	434 138	7 296 753				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 138	7 296 753	36	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges), anemones (*Actinostola callosa*), starfish (*?Ceramaster granularis*), sea cucumber (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	434 127	7 296 719				
	434 127	7 296 719	14	-	Sandy mud/muddy sand	Sponges (Porifera inc. mud-covered sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (Holothuroidea inc. *Parastichopus tremulus*), gadoid fish (Gadidae inc. *Pollachius virens*), burrows
	434 135	7 296 707				
	434 135	7 296 707	105	ABP21308-TR18-035 - ABP21308-TR18-041	Sandy mud/muddy sand with cobbles, small boulders and dead coral rubble	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges*,?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callo*sa), starfish (Poraniidae), sea cucumbers (*Parastichopus tremulus*), cold-water coral (*Desmophyllum pertusum*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 124	7 296 603				
	434 124	7 296 603	57	ABP21308-TR18-042 - ABP21308-TR18-044	Sandy mud/muddy sand with a patch of cobbles/small boulders and single boulders	Sponges (Porifera inc. ?*Antho dichotoma, Mycale lingua, Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	434 096	7 296 553				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 096	7 296 553	10	ABP21308-TR18-045 - ABP21308-TR18-046	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.,* encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (*Ceramaster granularis*, ?Poraniidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	434 093	7 296 543				
	434 093	7 296 543	85	ABP21308-TR18-047 - ABP21308-TR18-049	Sandy mud/muddy sand with a couple of patches of cobbles/small boulders	Sponges (Porifera inc. encrusting sponges, *Mycale lingua, Phakellia sp., ?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), ?sea squirts (Ascidiacea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), burrows
	434 063	7 296 464				
	434 063	7 296 464	24	ABP21308-TR18-050 - ABP21308-TR18-051	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Mycale lingua, Phakellia sp.*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (*Ceramaster granularis*, ?Poraniidae), sea cucumbers (Holothuroidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 059	7 296 440				
	434 059	7 296 440	12	ABP21308-TR18-052	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus,* other unidentified), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	434 056	7 296 429				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 056	7 296 429	44	ABP21308-TR18-053 - ABP21308-TR18-058	Sandy mud/muddy sand with cobbles, small boulders and coral rubble	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges*, Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Poraniidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galtheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	434 045	7 296 387				
	434 045	7 296 387	30	ABP21308-TR18-059 - ABP21308-TR18-068	Dead coral framework with coral rubble and sandy mud with cobbles and small boulders	Gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua,* Geodiidae*, Phakellia* sp., *?Antho dichotoma*), file shells (*Acesta escavata*), starfish (*Henricia sp.*), squat lobster (Galatheoidea), anemone (*Actinostola callosa*), green spoon worm (*Bonellia viridis*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), wolf fish (*Anarhichas lupus*)
	434 037	7 296 358				
	434 037	7 296 358	50	ABP21308-TR18-069	Muddy sand/sandy mud with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.,* Geodiidae, encrusting sponges), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces)
	434 014	7 296 313				
	434 014	7 296 313	15	ABP21308-TR18-070	Dead coral framework with coral rubble, boulders and cobbles	Gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua,* Geodiidae, *Phakellia sp.*), file shells (*Acesta escavata*), starfish (*Henricia sp.,*?Poraniidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	434 007	7 296 300				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 007	7 296 300	54	ABP21308-TR18-071	Sandy mud/muddy sand with a couple of patches of cobbles/small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), burrows
	433 988	7 296 250				
	433 988	7 296 250	54	ABP21308-TR18-072 - ABP21308-TR18-074	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.,* Geodiidae, encrusting sponges), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 970	7 296 199				
	433 970	7 296 199	66	ABP21308-TR18-075 - ABP21308-TR18-078	Sandy mud/muddy sand with a patch of cobbles/small boulders	Sponges (Porifera inc. *Stylocordyla borealis, Phakellia sp., Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), shrimp (Caridea), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 948	7 296 137				
	433 948	7 296 137	35	ABP21308-TR18-079 - ABP21308-TR18-085	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.*, Geodiidae, encrusting sponges, *Hymedesmia paupertas, ?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 938	7 296 103				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 938	7 296 103	77	ABP21308-TR18-086 - ABP21308-TR18-088	Sandy mud/muddy sand with a couple of patches of cobbles/small boulders	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae), burrows
	433 913	7 296 030				
	433 913	7 296 030	35	ABP21308-TR18-089 - ABP21308-TR18-090	Sandy mud/muddy sand with cobbles and small boulders and patch of bare sandy mud	Sponges (Porifera inc. *Phakellia sp., Mycale lingua,* Geodiidae, encrusting sponges), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	433 905	7 295 996				
	433 905	7 295 996	12	ABP21308-TR18-091 - ABP21308-TR18-096	Dead coral framework with dead coral rubble, boulders and cobbles	Gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua, ?Antho dichotoma, Phakellia sp.*), file shells (*Acesta escavata*), anemone (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 905	7 295 983				
	433 905	7 295 983	28	-	Sandy mud/muddy sand	Gadoid fish (Gadidae)
	433 877	7 295 986				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 877	7 295 986	41	ABP21308-TR18-097	Sandy mud/muddy sand with cobbles and small boulders and patch of bare sandy mud	Sponges (Porifera inc. *Phakellia sp.*, *Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 888	7 295 947				
	433 888	7 295 947	68	ABP21308-TR18-098 - ABP21308-TR18-100	Sandy mud/muddy sand	Sponges (Porifera inc. *Stylocordyla borealis*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 858	7 295 886				
	433 858	7 295 886	33	ABP21308-TR18-101	Sandy mud/muddy sand with cobbles and small boulders and patch of bare sandy mud	Sponges (Porifera inc. *Phakellia sp.*, Geodiidae, *Mycale lingua, Hymedesmia paupertas*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?starfish (Asteroidea), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 850	7 295 854				
	433 850	7 295 854	263	ABP21308-TR18-102 - ABP21308-TR18-107	Sandy mud/muddy sand with patches of cobbles/small boulders	Sponges (Porifera inc. *Stylocordyla borealis*, Geodiidae, *?Mycale lingua,?Antho dichotoma*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 763	7 295 606				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 763	7 295 606	20	ABP21308-TR18-108 - ABP21308-TR18-109	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp*., *Mycale lingua*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	433 757	7 295 587				
	433 757	7 295 587	11	-	Sandy mud/muddy sand	Sponges (Porifera inc.), sea cucumbers (*Parastichopus tremulus*), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 754	7 295 577				
	433 754	7 295 577	38	ABP21308-TR18-110	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp*., Geodiidae, *Mycale lingua*), anemone (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 740	7 295 542				
	433 740	7 295 542	118	ABP21308-TR18-111	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), burrows, anthropogenic waste (?plastic packaging)
	433 711	7 295 427				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 711	7 295 427	89	ABP21308-TR18-112 - ABP21308-TR18-119	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.*, *Mycale lingua,* encrusting sponges), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea inc. ?Poraniidae), gadoid fish (Gadidae), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 701	7 295 338				
	433 701	7 295 338	29	-	Sandy mud/muddy sand	Sponges (Porifera), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), gadoid fish (Gadidae), saithe (*Pollachius virens*), burrows
	433 672	7 295 336				
	433 672	7 295 336	20	-	Sandy mud/muddy sand with cobbles and small boulders	Sponges (Porifera inc. *Phakellia sp.*, *?Antho dichotoma, Mycale lingua,* Geodiidae), mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	433 670	7 295 355				
	433 670	7 295 355	4	ABP21308-TR18-120 - ABP21308-TR18-127	Dead coral framework with dead coral rubble, boulders and cobbles	Gorgonian coral (*Paragorgia arborea, Primnoa resedaeformis*), cold-water corals (*Desmophyllum pertusum*), sponges (Porifera inc. *Mycale lingua, ?Antho dichotoma, Phakellia sp.*), file shells (*Acetsa escavata*), anemone (*Actinostola callosa*), gadoid fish (Gadidae), saithe (*Pollachius virens*)
	433 675	7 295 355				
ABP21308-TR19	432 173	7 296 530	35	ABP21308-TR19-001 – ABP21308-TR19-002	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), krill (Euphausiacea), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 202	7 296 550				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 202	7 296 550	20	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), cushion stars (*Porania pulvillus*), krill (Euphausiacea), silvery pout (*Gadiculus argenteus*), fish (Gadiformes). Faunal burrows
	432 219	7 296 561				
	432 219	7 296 561	47	ABP21308-TR19-003	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 259	7 296 586				
	432 259	7 296 586	62	ABP21308-TR19-004	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumbers (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal burrows
	432 310	7 296 621				
	432 310	7 296 621	39	-	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including ?Polymastiidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), silvery pout (*Gadiculus argenteus*). Faunal tracks and burrows
	432 349	7 296 625				
	432 349	7 296 625	37	ABP21308-TR19-005 – ABP21308-TR19-006	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 379	7 296 647				
	432 379	7 296 647	33	ABP21308-TR19-007 – ABP21308-TR19-009	Dead coral framework and rubble on sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), gorgonian corals (*Paragorgia arborea* and *Primnoa resedaeformis*), cushion stars (Valvatida), sea cucumber (*Parastichopus tremulus*), file shells (*Acesta excavata*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	432 399	7 296 673				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 399	7 296 673	45	ABP21308-TR19-010	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria including ?*Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), silvery pout (*Gadiculus egenteus*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 433	7 296 703				
	432 433	7 296 703	25	-	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Asteroidea), squat lobsters (Galatheoidea), shrimp (Caridea), silvery pout (*Gadiculus argenteus*). Faunal tracks and burrows
	432 454	7 296 717				
	432 454	7 296 717	32	ABP21308-TR19-011	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 480	7 296 735				
	432 480	7 296 735	27	ABP21308-TR19-012	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including ?Polymastiidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), silvery pout (*Gadiculus argenteus*). Faunal tracks and burrows
	432 503	7 296 750				
	432 503	7 296 750	23	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), fish (Pisces). Faunal burrows
	432 523	7 296 762				
	432 523	7 296 762	27	-	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), greater forkbeard (*Phycis blennoides*), tusk (*Brosme brosme*), flatfish (Pleuronectiformes). Faunal tracks and burrows
	432 545	7 296 777				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 545	7 296 777	15	ABP21308-TR19-013	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*). Faunal burrows
	432 558	7 296 785				
	432 558	7 296 785	128	ABP21308-TR19-014 – ABP21308-TR19-015	Sandy mud/muddy sand	Sponges (Porifera: erect/stalked forms including *Mycale lingua* and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), cushion star (Valvatida), squat lobster (Galatheoidea), silvery pout (*Gadiculus agenteus*), saithe (*Pollachius virens*), redfish (Sebastidae), flatfish (Pleuronectiformes), fish (Pisces including Gadidae). Faunal tracks and burrows
	432 664	7 296 856				
	432 664	7 296 856	51	ABP21308-TR19-016 – ABP21308-TR19-018	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actiniaria), green spoon worm (*Bonellia viridis*), tusk (*Brosme brosme*), saithe (*Pollachius virens*). Faunal burrows
	432 706	7 296 885				
	432 706	7 296 885	74	ABP21308-TR19-019 – ABP21308-TR19-020	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), squat lobsters (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal tracks and burrows
	432 767	7 296 927				
	432 767	7 296 927	32	ABP21308-TR19-021	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), redfish (Sebastidae). Faunal burrows
	432 795	7 296 943				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 795	7 296 943	56	ABP21308-TR19-022	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/stalked forms including Axinellidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), bryozoan (*Kinetoskias* sp.), squat lobsters (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal tracks and burrows
	432 843	7 296 971				
	432 843	7 296 971	7	ABP21308-TR19-023 – ABP21308-TR19-028	Coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae and *Mycale lingua*; encrusting forms), file shells (*Acesta excavata*), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework
	432 849	7 296 975				
	432 849	7 296 975	17	ABP21308-TR19-029 – ABP21308-TR19-030	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (*Actinostola callosa*), saithe (*Pollachius virens*). Faunal burrows
	432 856	7 296 991				
	432 856	7 296 991	12	ABP21308-TR19-031 – ABP21308-TR19-034	Coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*.; encrusting forms), soft corals (Alcyonium including *Paragorgia arborea*), green spoon worm (*Bonellia viridis*), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	432 864	7 297 000				
	432 864	7 297 000	65	ABP21308-TR19-035	Sandy mud/muddy sand, with a patch of pebbles, cobbles and small boulders	Sponges (Porifera: erect/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), soft coral (*Paragorgia arborea*), sea cucumbers (*Parastichopus tremulus*), sunstar (Solasteridae), squat lobsters (Galatheoidea), shrimp (Caridea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal burrows
	432 923	7 297 028				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 923	7 297 028	20	ABP21308-TR19-036 – ABP21308-TR19-038	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), ?ling (*Molva* sp.). Faunal burrows
	432 940	7 297 038				
	432 940	7 297 038	38	ABP21308-TR19-039	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including ?Polymastiidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), crab (Decapoda), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal tracks and burrows
	432 970	7 297 061				
	432 970	7 297 061	9	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), flatfish (Pleuronectiformes). Faunal burrows
	432 977	7 297 066				
	432 977	7 297 066	59	ABP21308-TR19-040	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including ?Polymastiidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), saithe (*Pollachius virens*), torsk (*Brosme brosme*), fish (Pisces). Faunal tracks and burrows
	433 027	7 297 097				
	433 027	7 297 097	26	ABP21308-TR19-041	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 048	7 297 112				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 048	7 297 112	97	ABP21308-TR19-042 – ABP21308-TR19-044	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: massive/erect/stalked forms including ?Polymastiidae, Axinellidae, *Phakellia* sp. and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actiniaria), starfish (Asteroidea), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), fish (Pisces). Faunal tracks and burrows
	433 098	7 297 195				
	433 098	7 297 195	47	ABP21308-TR19-045 – ABP21308-TR19-046	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (Actiniaria), green spoon worm (*Bonellia viridis*), squat lobsters (Galatheoidea), saithe (*Pollachius virens*). Faunal burrows
	433 145	7 297 196				
	433 145	7 297 196	47	-	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including ?Polymastiidae, Axinellidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), saithe (*Pollachius virens*), greater forkbeard (*Phycis blennoides*), flatfish (Pleuronectiformes), redfish (Sebastidae). Faunal tracks and burrows
	433 191	7 297 206				
	433 191	7 297 206	35	ABP21308-TR19-047 – ABP21308-TR19-049	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria including *Actinostola callosa*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), torsk (*Brosme brosme*), redfish (Sebastidae). Faunal burrows
	433 220	7 297 225				
	433 220	7 297 225	60	ABP21308-TR19-050	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal tracks and burrows
	433 270	7 297 258				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 270	7 297 258	49	ABP21308-TR19-051 – ABP21308-TR19-053	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian coral (*Paragorgia arborea*), anemones (Actiniaria including *Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 316	7 297 275				
	433 316	7 297 275	13	ABP21308-TR19-054 – ABP21308-TR19-057	Patches of coral framework on sandy mud/muddy sand with pebbles and cobbles	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., and *Mycale lingua*.; encrusting forms), soft corals (*Paragorgia arborea*), anemone (Ceriantharia), file shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Gadiformes). Dead *Desmophyllum pertusum* framework
	433 329	7 297 277				
	433 329	7 297 277	122	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: erect/stalked forms including *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), ?sea pen (*Virgularia* sp.), sea cucumber (*Parastichopus tremulus*), shrimp (Caridea), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), fish (Pisces). Faunal tracks and burrows
	433 420	7 297 359				
	433 420	7 297 359	24	ABP21308-TR19-058	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	433 440	7 297 373				
	433 440	7 297 373	252	ABP21308-TR19-059 – ABP21308-TR19-065	Sandy mud/muddy sand with patches of cobbles	Sponges (Porifera: massive/erect/branching/stalked forms includingAxinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 649	7 297 513				Biemnidae/Tethyidae/Tetillidae/Theneidae), sea pens (Pennatulacea including *Kophebelemnon stelliferum* and *Virgularia* sp.), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), monkfish (Lophiidae), fish (Pisces). Faunal tracks and burrows
	433 649	7 297 513	34	ABP21308-TR19-066	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 678	7 297 530				
	433 678	7 297 530	12	ABP21308-TR19-067 – ABP21308-TR19-070	Dead coral framework and rubble	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., and *Mycale lingua*.; encrusting forms), soft corals (*Paragorgia arborea*), afile shells (*Acesta excavata*), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework
	433 688	7 297 536				
	433 688	7 297 536	52	ABP21308-TR19-071 – ABP21308-TR19-074	Sandy mud/muddy sand with patches of cobbles and a patch of dead coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: erect/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), soft coral (*Paragorgia arborea*), anemones (Actiniaria and Ceriantharia), sea cucumbers (*Parastichopus tremulus*), sea urchin (Echinoidea), file shells (*Acesta excavata*), saithe (*Pollachius virens*), fish (Pisces). Faunal tracks and burrows. Dead Desmophyllum pertusum framework
	433 731	7 297 566				
	433 731	7 297 566	35	-	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft coral (*Paragorgia arborea*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 761	7 297 584				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 761	7 297 584	95	ABP21308-TR19-075 – ABP21308-TR19-077	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: massive/erect/branching/stalked forms including Axinellidae, *Phakellia* sp, *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea pens (*Kophobelemnon stelliferum*), sea cucumbers (*Parastichopus tremulus*), cushion star (Valvatida), saithe (*Pollachius virens*), fish (Pisces). Faunal tracks and burrows
	433 839	7 297 638				
ABP21308-TR20	433 682	7 298 058	92	ABP21308-TR20-001 – ABP21308-TR20-004	Sandy mud/muddy sand, a small boulder	Sponges (Porifera: erect/stalked forms including *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea pen (Pennatulacea), sea cucumbers (*Parastichopus tremulus* and ?*Mesothuria intestinalis*), krill (Euphausiacea), squat lobster (Galatheoidea), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	433 592	7 298 041				
	433 592	7 298 041	70	ABP21308-TR20-005 – ABP21308-TR20-010	Sandy mud/muddy sand with patches of pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua*, ?*Antho dichotoma* and *Stylocordyla broealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia and *Actinostola callosa*), cushion star (Valvatida), shrimp (Caridea), squat lobster (Galatheoidea), krill (Euphausiacea), four-spot megrim (*Lepidorhombus boscii*). Faunal burrows
	433 528	7 298 069				
	433 528	7 298 069	121	ABP21308-TR20-011 – ABP21308-TR20-020	Sandy mud/muddy sand with pebbles, cobbles and small boulders, a patch of coral rubble	Sponges (Porifera: massive/erect/branching/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua*, ?*Antho dichotoma* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), krill (Euphausiacea), tusk (*Brosme brosme*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). *Desmophyllum pertusum* rubble. Faunal burrows
	433 416	7 298 024				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 416	7 298 024	16	-	Slightly gravelly sandy mud/muddy sand and a patch of coral rubble	Sponges (Porifera), krill (Euphausiacea), fish (Pisces). Faunal burrows
	433 400	7 298 021				
	433 400	7 298 021	16	ABP21308-TR20-021 – ABP21308-TR20-022	Dead coral framework and rubble on sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), cushion star (Valvatida). Dead *Desmophyllum pertusum* framework and rubble
	433 384	7 298 018				
	433 384	7 298 018	10	-	Sandy mud/muddy sand	Sponges (Porifera). Faunal burrows
	433 374	7 298 017				
	433 374	7 298 017	36	ABP21308-TR20-023 – ABP21308-TR20-025	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), anemones (Actiniaria), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 339	7 298 011				
	433 339	7 298 011	51	ABP21308-TR20-026 – ABP21308-TR20-029	Slightly gravelly sandy mud/muddy sand with cobbles, a patch of small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting form; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), starfish (Asteroidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), ?greater forkbeard (*Phycis blennoides*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 299	7 297 980				
	433 299	7 297 980	24	ABP21308-TR20-030 – ABP21308-TR20-034	Slighly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft corals (Alcyonium including *Paragorgia arborea* and *Primnoa resedaeformis*), cushion star (*Porania pulvillus*), green spoon worm (*Bonellia viridis*), squat lobsters (Galatheoidea), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 276	7 297 988				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 276	7 297 988	24	ABP21308-TR20-035 – ABP21308-TR20-038	Dead coral framework and rubble	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae and Axinellidae.; encrusting forms), soft corals (Alcyonium including *Paragorgia arborea*, *Primnoa resedaeformis* and *Anthothela grandiflora*), anemone (Actiniaria including *Actinostola callosa*), se acucumber (*Parastichopus tremulus*), file shells (*Acesta excavata*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	433 258	7 298 004				
	433 258	7 298 004	9	-	Slighly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae)
	433 250	7 298 000				
	433 250	7 298 000	49	ABP21308-TR20-039	Sandy mud/muddy sand with occasional cobbles and small boulders	Sponges (Porifera: massive/erect forms including *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), squat lobster (Galatheoidea), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 201	7 297 994				
	433 201	7 297 994	14	ABP21308-TR20-040 – ABP21308-TR20-041	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), anemone (Actiniaria), starfish (Asteroidea), saithe (*Pollachius virens*)
	433 188	7 297 989				
	433 188	7 297 989	108	ABP21308-TR20-042 – ABP21308-TR20-046	Sandy mud/muddy sand	Sponges (Porifera: branching/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), cushion star (Valvatida including *Hippasteria phrygiana*), shrimp (Caridea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*),redfish (Sebastidae), flatfish (Pleuronectiformes), fish (Pisces). Faunal burrows
	433 080	7 297 981				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 080	7 297 981	9	ABP21308-TR20-047 – ABP21308-TR20-048	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actiniaria), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae)
	433 071	7 297 980				
	433 071	7 297 980	34	ABP21308-TR20-049	Sandy mud/muddy sand with occasional small boulders	Sponges (Porifera: massive/erect branching forms including Axinellidae; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus* and ?*Mesothuria intestinalis*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 038	7 297 974				
	433 038	7 297 974	31	ABP21308-TR20-050 – ABP21308-TR20-051	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Actiniaria), squat lobsters (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal burrows
	433 008	7 297 966				
	433 008	7 297 966	38	ABP21308-TR20-052	Sandy mud/muddy sand	Sponges (Porifera: massive/branching forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus* and ?*Mesothuria intestinalis*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal tubes and burrows
	432 970	7 297 964				
	432 970	7 297 964	15	ABP21308-TR20-053	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*)
	432 955	7 297 962				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 955	7 297 962	17	-	Sandy mud/muddy sand	Sponges (Porifera: branching/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*). Faunal tubes and burrows
	432 938	7 297 961				
	432 938	7 297 961	25	ABP21308-TR20-054 – ABP21308-TR20-055	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), cushion star (*Porania pulvillus*), spoon wrom (*Bonellia viridis*), squat lobster (Galtheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 913	7 297 956				
	432 913	7 297 956	39	-	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), redfish (Sebastidae). Faunal burrows
	432 874	7 297 950				
	432 874	7 297 950	11	ABP21308-TR20-056	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 866	7 297 943				
	432 866	7 297 943	40	ABP21308-TR20-057	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: massive/erect forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus* and ?*Mesothuria intestinalis*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 826	7 297 943				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 826	7 297 943	24	ABP21308-TR20-058 – ABP21308-TR20-060	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), squat lobster (Galatheoidea), krill (Euphausiacea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae)
	432 802	7 297 942				
	432 802	7 297 942	46	-	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), cushion star (*Porania pulvillus*), squat lobster (Galatheoidea), ?Norway lobster (*Nephrops norvegicus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 757	7 297 935				
	432 757	7 297 935	14	ABP21308-TR20-061 – ABP21308-TR20-065	Dead coral mound	Cold-water corals (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Astrophorina, Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), sea urchin (Echinoidea), cushion star (Valvatida), file shell (*Acesta excavata*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	432 743	7 297 932				
	432 743	7 297 932	6	-	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), anemone (*Actinostola callosa*), saithe (*Pollachius virens*)
	432 737	7 297 931				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 737	7 297 931	54	-	Sandy mud/muddy sand with a patches of cobbles	Sponges (Porifera: massive/erect/branched/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 683	7 297 925				
	432 683	7 297 925	12	ABP21308-TR20-066	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces)
	432 671	7 297 923				
	432 671	7 297 923	93	ABP21308-TR20-067 – ABP21308-TR20-069	Sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), krill (Euphausiacea), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), fish (Pisces). Faunal burrows
	432 579	7 297 911				
	432 579	7 297 911	48	ABP21308-TR20-070 – ABP21308-TR20-071	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces including Gadiformes). Faunal burrows
	432 531	7 297 905				
	432 531	7 297 905	17	-	Sandy mud/muddy sand	Sponges (Porifera), sea cucumber (*Parastichopus tremulus*), krill (Euphausiacea), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	432 514	7 297 904				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 514	7 297 904	13	ABP21308-TR20-072	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces including Gadiformes). Faunal burrows
	432 501	7 297 903				
	432 501	7 297 903	24	ABP21308-TR20-073	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), krill (Euphausiacea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 478	7 297 897				
	432 478	7 297 897	24	ABP21308-TR20-074	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 454	7 297 894				
	432 454	7 297 894	42	-	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	432 412	7 297 890				
	432 412	7 297 890	22	ABP21308-TR20-075 – ABP21308-TR20-077	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*)
	432 390	7 297 886				
	432 390	7 297 886	126	ABP21308-TR20-078 – ABP21308-TR20-083	Sandy mud/muddy sand with patches of pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), anmones (Actiniaria), sea cucumbers (*Parastichopus tremulus*), shrimp (Caridea), saithe (*Pollachius virens*), silvery pout (*Gadiculus acutus*), tusk (*Brosme brosme*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 265	7 297 869				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 265	7 297 869	145	ABP21308-TR20-085 – ABP21308-TR20-087	Sandy mud/muddy sand with occasional cobbles and small boulders	Sponges (Porifera: massive/erect/stalked forms including Axinellida, *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal tracks and burrows
	432 121	7 297 850				
	432 121	7 297 850	17	ABP21308-TR20-088 – ABP21308-TR20-089	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemones (Actiniaria), cushion star (*Poranial pulvillus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*)
	432 104	7 297 848				
	432 104	7 297 848	49	ABP21308-TR20-090	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	432 055	7 297 842				
	432 055	7 297 842	36	ABP21308-TR20-091 – ABP21308-TR20-093	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumbers (*Parastichopus tremulus*), krill (Euphausiacea), saithe (*Pollachius virens*), tusk (*Brosme brosme*)
	432 020	7 297 836				
	432 020	7 297 836	68	ABP21308-TR20-094	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	431 953	7 297 827				
	431 953	7 297 827	17	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), krill (Euphausiacea), saithe (*Pollachius virens*). Faunal burrows
	431 936	7 297 825				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	431 936	7 297 825	81	ABP21308-TR20-095 – ABP21308-TR20-096	Sandy mud/muddy sand, a small boulder	Sponges (Porifera: massive/erect/stalked forms including Axinellidae and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), flatfish (Pleuronectiformes), fish (Pisces). Faunal burrows
	431 855	7 297 816				
	431 855	7 297 816	8	ABP21308-TR20-097	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), krill (Euphausiacea), saithe (*Pollachius virens*). Faunal tubes and burrows
	431 847	7 297 816				
	431 847	7 297 816	52	-	Sandy mud/muddy sand, a small boulder	Sponges (Porifera: massive/erect/stalked forms including Axinellidae and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	431 796	7 297 806				
	431 796	7 297 806	44	ABP21308-TR20-098 – ABP21308-TR20-099	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft coral (*Paragorgia arborea*), cushion star (*Porania pulvillus*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	431 752	7 297 804				
	431 752	7 297 804	8	ABP21308-TR20-100	Dead cold water coral mounds on sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect forms including *Mycale lingua*; encrusting forms), soft corals (Alcyonium including *Paragorgia arborea*), sea cucumber (*Parastichopus tremulus*), file shell (*Acesta excavata*), crab (Decapoda), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	431 745	7 297 807				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	431 745	7 297 807	21	ABP21308-TR20-101	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	431 729	7 297 820				
	431 729	7 297 820	4	ABP21308-TR20-102 – ABP21308-TR20-103	Dead cold water coral mounds on sandy mud/muddy sand	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect forms including *Mycale lingua*; encrusting forms), soft corals (Alcyonium including *Paragorgia arborea*), crinoid (Crinoidea), file shell (*Acesta excavata*), saithe (*Pollachius virens*). Dead *Desmophyllum pertusum* framework and rubble
	431 727	7 297 824				
	431 727	7 297 824	17	-	Sandy mud/muddy sand	Saithe (*Pollachius virens*). Faunal burrows
	431 718	7 297 810				
	431 718	7 297 810	17	ABP21308-TR20-104 – ABP21308-TR20-105	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), green spoon worms (*Bonellia viridis*), saithe (*Pollachius virens*). Faunal burrows
	431 711	7 297 795				
	431 711	7 297 795	16	ABP21308-TR20-106	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	431 695	7 297 793				
ABP21308-TR21	432 026	7 299 623	57	ABP21308-TR21-001 – ABP21308-TR21-003	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect forms including Axinellidae, *Phakellia* sp.and *Mycale lingua*; encrusting forms), ?soft (*Paragorgia arborea*), ?green spoon worm (*Bonellia viridis*), tusk (*Brosme brosme*), redfish (Sebastidae), fish (Pisces)
	432 082	7 299 612				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 082	7 299 612	47	-	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Mycale lingua* and ?*Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 109	7 299 573				
	432 109	7 299 573	16	ABP21308-TR21-004 – ABP21308-TR21-007	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect forms including Axinellidae, *Phakellia* sp.and *Mycale* sp.; encrusting forms), cushion star (Valvatida), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 122	7 299 564				
	432 122	7 299 564	27	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect forms including Axinellidae; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 145	7 299 550				
	432 145	7 299 550	15	ABP21308-TR21-008 – ABP21308-TR21-010	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp., *Mycale* sp. and ?*Antho dichotoma*; encrusting forms including *Hymedesmia paupertas*), sea cucumber (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal tubes, mounds and burrows
	432 159	7 299 545				
	432 159	7 299 545	30	ABP21308-TR21-011 – ABP21308-TR21-014	Sandy mud/muddy sand with occasional cobbles, a small boulder	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Mycale lingua* and *Stylocordyla borealis*; encrusting forms including (*Hymedesmia paupertas;* mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae), silvery pout (*Gadiculus argenteus*), greater forkbeard (*Phycis blennoides*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 185	7 299 531				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 185	7 299 531	9	ABP21308-TR21-015 – ABP21308-TR21-017	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and ?*Antho dichotoma*; encrusting forms), glass sponge (*Asconema* sp.), green spoon worm (*Bonellia viridis*), silvery pout (*Gadiculus argenteus*). Faunal burrows
	432 190	7 299 524				
	432 190	7 299 524	22	ABP21308-TR21-018 – ABP21308-TR21-022	Sandy mud/muddy sand	Sponges (Porifera: stalked forms *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), silvery pout (*Gadiculus argenteus*), greater forkbeard (*Phycis blennoides*), redfish (Sebatidae), fish (Pisces). Faunal burrows
	432 202	7 299 506				
	432 202	7 299 506	47	ABP21308-TR21-023 – ABP21308-TR21-032	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), ?glass sponge (*Asconema* sp.), sea cucumbers (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), shrimps (Caridea), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal tracks and burrows
	432 244	7 299 485				
	432 244	7 299 485	16	ABP21308-TR21-033 – ABP21308-TR21-035	Sandy mud/muddy sand	Sponges (Porifera: massive/stalked forms including Axinellidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae). Faunal burrows
	432 256	7 299 475				
	432 256	7 299 475	51	ABP21308-TR21-036 – ABP21308-TR21-037	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), sea cucumber (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), redfish (Sebastidae). Faunal burrows
	432 297	7 299 445				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 297	7 299 445	19	ABP21308-TR21-038 – ABP21308-TR21-047	Dead coral framework and rubble	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft corals (*Paragorgia arborea*), anemone (*Actinostola callosa*), ?sea urchin (Echinoidea), file shells (*Acesta excavata*), redfish (Sebastidae). Dead Desmophyllum pertusum framework and rubble
	432 305	7 299 428				
	432 305	7 299 428	14	ABP21308-TR21-048	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), redfish (Sebastidae). Faunal burrows
	432 317	7 299 436				
	432 317	7 299 436	24	ABP21308-TR21-049 – ABP21308-TR21-051	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/stalked forms including Axinellidae and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 341	7 299 440				
	432 341	7 299 440	76	ABP21308-TR21-052 – ABP21308-TR21-067	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), green spoon worms (*Bonellia viridis*), silvery pout (*Gadiculus argenteus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal tubes and burrows
	432 408	7 299 405				
	432 408	7 299 405	29	ABP21308-TR21-068 – ABP21308-TR21-071	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Mesothuria intestinalis*), green spoon worms (*Bonellia viridis*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 436	7 299 397				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 436	7 299 397	104	ABP21308-TR21-072 – ABP21308-TR21-092	Slightly gravelly sandy mud/muddy sand with coral rubble, pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), gorgonian corals (*Paragorgia arborea*), anemones (Ceriantharia), sea cucumber (*Parastichopus tremulus*), cushion star (Valvatida), green spoon worms (*Bonellia viridis*), greater forkbeard (*Phycis blennoides*), saithe (*Pollachius virens*). Coral rubble. Faunal tubes and burrows
	432 526	7 299 345				
	432 526	7 299 345	20	-	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 546	7 299 341				
	432 546	7 299 341	31	ABP21308-TR21-093 – ABP21308-TR21-095	Sandy mud/muddy sand	Sponges (Porifera: massive/branching/stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), cushion star (Valvatida), shrimp (Caridea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 574	7 299 328				
	432 574	7 299 328	49	-	Slightly gravelly sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axibellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	432 615	7 299 301				
	432 615	7 299 301	22	ABP21308-TR21-096 – ABP21308-TR21-098	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: branching/stalked forms including *Stylocordyla borealis*), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal tracks and burrows
	432 634	7 299 290				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 634	7 299 290	12	ABP21308-TR21-099	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	432 644	7 299 283				
	432 644	7 299 283	80	ABP21308-TR21-100 – ABP21308-TR21-107	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: branching/stalked forms including ?Polymastiidae, *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobster (Galatheoide), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), flatfish (Pleuronectiformes), redfish (Sebastidae), fish (Gadiformes). Faunal tracks and burrows
	432 717	7 299 250				
	432 717	7 299 250	21	ABP21308-TR21-108	Slightly gravelly sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), starfish (Asteroidea), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	432 737	7 299 244				
	432 737	7 299 244	29	ABP21308-TR21-109 – ABP21308-TR21-114	Coral rubble on sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms including *Hymedesmia paupertas*), cushion star (Valvatida), redfish (Sebastidae), fish (Pisces). Dead *Desmophyllum pertusum* framework and rubble
	432 764	7 299 233				
	432 764	7 299 233	17	ABP21308-TR21-115 – ABP21308-TR21-118	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and occasional small boulders	Sponges (Porifera: branching forms; encrusting forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Gadiformes). Faunal burrows
	432 775	7 299 220				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 775	7 299 220	5	ABP21308-TR21-119	Coral rubble on sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae,*Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	432 780	7 299 218				
	432 780	7 299 218	8	ABP21308-TR21-120	Small boulders on slightly gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae,*Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), gorgonian coral (*Paragorgia arborea*), redfish (Sebastidae)
	432 786	7 299 213				
	432 786	7 299 213	80	ABP21308-TR21-121 – ABP21308-TR21-128	Slightly gravelly sandy mud/muddy sand with occasional cobbles and small boulders	Sponges (Porifera: massive/erect/stalked forms including Polymastiidae, Axinellidae, *Phakellia* sp. and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia and Actiniaria), shrimp (Caridea), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal burrows
	432 853	7 299 170				
	432 853	7 299 170	24	ABP21308-TR21-129 – ABP21308-TR21-137	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and occasional small boulders	Sponges (Porifera: branching forms; encrusting forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), anemone (*Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), redfish (Sebastidae). Faunal burrows
	432 873	7 299 157				
	432 873	7 299 157	39	ABP21308-TR21-138	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/branching forms including Polymastiidae; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?forams (Foraminifera), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Gadiformes). Faunal racks and burrows
	432 909	7 299 143				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	432 909	7 299 143	38	ABP21308-TR21-139 – ABP21308-TR21-144	Slightly gravelly sandy mud/muddy sand with cobbles and boulders	Sponges (Porifera: branching forms; encrusting forms including Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), cushion stars (*Porania pulvillus*), redfish (Sebastidae). Faunal burrows
	432 945	7 299 130				
	432 945	7 299 130	47	ABP21308-TR21-145	Sandy mud/muddy sand with a patches of gravel, pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Polymastiidae, Axinellida and *Phakellia* sp.: encrusting forms: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), squat lobsters (Galatheoidea), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	432 987	7 299 109				
	432 987	7 299 109	12	-	Sandy mud/muddy sand with small boulders	Sponges (Porifera: branching forms; encrusting forms including Axinellidae and *Phakellia* sp.; encrusting forms), redfish (Sebastidae). Faunal burrows
	432 993	7 299 099				
	432 993	7 299 099	32	-	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: branching forms: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), cushion star (*Porania pulvillus*), redfish (Sebastidae). Faunal burrows
	433 021	7 299 083				
	433 021	7 299 083	67	ABP21308-TR21-146 – ABP21308-TR21-150	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: branching forms; encrusting forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), squat lobster (Galatheoidea), tusk (*Brosme brosme*), redfish (Sebastidae), fish (Gadiformes). Faunal burrows
	433 079	7 299 050				
	433 079	7 299 050	34	ABP21308-TR21-151 – ABP21308-TR21-153	Sandy mud/muddy sand with patches of pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including *Phakellia* sp.: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), green spoon worm (*Bonellia viridis*), rabbitfish (*Chimaera monstrosa*), silvery pout (*Gadiculus argenteus*), flatfish (Pleuronectiformes), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 100	7 299 023				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 100	7 299 023	22	ABP21308-TR21-154 – ABP21308-TR21-158	Dead coral framework and rubble on sandy mud/muddy sand with pebbles and cobbles	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea*), cushion star (Valvatida), file shells (*Acesta excavata*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	433 120	7 299 013				
	433 120	7 299 013	40	ABP21308-TR21-159 – ABP21308-TR21-160	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemones (*Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae). Faunal burrows
	433 143	7 298 980				
	433 143	7 298 980	38	ABP21308-TR21-161 – ABP21308-TR21-179	Patches of coral framework on sandy mud/muddy sand with pebbles, cobbles and small boulders	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (Alcyonium including *Paragorgia arborea*), anemones (*Actinostola callosa*), starfish (Asteroidea), file shells (*Acesta excavata*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble. Faunal burrows
	433 177	7 298 964				
	433 177	7 298 964	30	ABP21308-TR21-180 – ABP21308-TR21-196	Coral rubble on sandy mud/muddy sand with pebbles, cobbles and a small patch of coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian coral (*Paragorgia arborea*), cushion star (Valvatida), file shell (*Acesta excavata*), green spoon worm (*Bonellia viridis*), redfish (Sebastidae). Dead *Desmophyllum pertusum framework* and rubble. Faunal burrows
	433 199	7 298 944				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 199	7 298 944	9	ABP21308-TR21-197 – ABP21308-TR21-198	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae and *Phakellia* sp.; encrusting forms), anemones (*Actinostola callosa*), redfish (Sebastidae). Faunal burrows
	433 208	7 298 947				
	433 208	7 298 947	89	ABP21308-TR21-199 – ABP21308-TR21-208	Sandy mud/muddy sand with occasional pebbles, a small boulder	Sponges (Porifera: erect/branching/stalked forms including *Mycale lingua* and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), anemone (Ceriantharia), pencil urchin (Cidaridae), sea cucumbers (*Parastichopus tremulus*), king crab (*Lithodes maja*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), flatfish (Pleuronectiformes), fish (Pisces). Faunal tracks and burrows
	433 296	7 298 934				
	433 296	7 298 934	33	ABP21308-TR21-209 – ABP21308-TR21-211	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Polymastiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumber (*Parastichopus tremulus*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	433 326	7 298 920				
	433 326	7 298 920	238	ABP21308-TR21-212 – ABP21308-TR21-223	Sandy mud/muddy sand and occasional small patches of pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branched/stalked forms including *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; erect forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea pens (*Kophobelemnon stelliferum*), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), starfish (Asteroidea), cushion star (*Hippasteria phrygiana*), sunstar (Solasteridae including ?*Solaster endeca*), sea urchin (Echinoidea), sea squirts (Ascidiacea), shrimp (Caridea), silvery pout (*Gadiculus argenteus*), rabbitfish (*Chimaera monstrosa*), greater forkbeeard (*Phycis blennoides*), tuesk (*Brosme brosme*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal tracks and burrows
	433 541	7 298 817				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 541	7 298 817	40	ABP21308-TR21-224 – ABP21308-TR21-226	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), anemone (Ceriantharia and Actiniaria), sea cucumber (*Parastichopus tremulus*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae). Faunal burrows
	433 579	7 298 804				
	433 579	7 298 804	26	-	Sandy mud/muddy sand	Sponges (Porifera: stalked forms including *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), redfish (Sebastidae). Faunal burrows
	433 591	7 298 781				
	433 591	7 298 781	42	ABP21308-TR21-227 – ABP21308-TR21-230	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), anemone (Ceriantharia and Actiniaria), starfish (Asteroidea), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 625	7 298 757				
	433 625	7 298 757	19	-	Slightly gravelly sandy mud/muddy sand with a patch of coral rubble	Sponges (Porifera: massive/erect forms including *Phakellia* sp.; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), flatfish (Pleuronectiformes), redfish (Sebastidae). *Desmophyllum pertusum* rubble. Faunal burrows
	433 641	7 298 747				
	433 641	7 298 747	15	ABP21308-TR21-231 – ABP21308-TR21-240	Sandy mud/muddy sand with pebbles, cobbles and small boulders with a patch of coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft corals (Alcyonacea including *Paragorgia arborea*), anemones (*Actinostola callosa*), cushion star (Valvatida including *Porania pulvillus*), file shell (*Acesta excavata*). Dead *Desmophyllum pertusum* framework
	433 653	7 298 738				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 653	7 298 738	157	ABP21308-TR21-241 – ABP21308-TR21-257	Sandy mud/muddy sand with pebbles and patches of cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumbers (*Parastichopus tremulus*), flatfish (Pleuronectiformes), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal burrows
	433 795	7 298 671				
ABP21308-TR22	434 234	7 299 095	91	ABP21308-TR22-001 – ABP21308-TR22-008	Sandy mud/muddy sand with patches of pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp.and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), anemone (Actiniaria), squat lobster (Galatheoidea), redfish (Sebastidae), fish (Pisces including Gadiformes). Faunal tracks and burrows. Possible coral rubble
	434 209	7 299 182				
	434 209	7 299 182	48	-	Sandy mud/muddy sand with occasional pebbles and cobbles	Sponges (Porifera: massive/erect/stalked forms including Polymastiidae and *Stylocordyla borealis*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?forams (Foraminifera), silvery pout (*Gadiculus argenteus*), ?redfish (Sebastidae), fish (Pisces). Faunal tracks and burrows
	434 175	7 299 216				
	434 175	7 299 216	75	ABP21308-TR22-009 – ABP21308-TR22-015	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), ?glass sponge (*Asconema* sp.), anemones (Ceriantharia and Actiniaria), green spoon worm (*Bonellia viridis*), shrimp (Caridea), redfish (Sebastidae), greater forkbeard (*Phycis blennoides*), fish (Pisces). Faunal burrows
	434 145	7 299 285				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 145	7 299 285	38	ABP21308-TR22-016 – ABP21308-TR22-017	Sandy mud/muddy sand	Sponges (Porifera: branching forms; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?forams (Foraminifera), krill (Euphausiacea), saithe (*Pollachius virens*). Faunal tracks and burrows
	434 126	7 299 318				
	434 126	7 299 318	55	ABP21308-TR22-018	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), anemone (Actiniaria), green spoon worm (*Bonellia viridis*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), monkfish (Lophiidae). Faunal burrows
	434 100	7 299 367				
	434 100	7 299 367	113	ABP21308-TR22-019 – ABP21308-TR22-020	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: massive/erect/stalked forms including Axinellidae, *Phakellia* sp., *Mycale lingua* and *Stylocordyla borealis*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?forams (Foraminifera), shrimp (Caridea), greater forkbeard (*Phycis blennoides*), saithe (*Pollachius virens*), flatfish (Pleuronectiformes), fish (Pisces). Faunal tracks and burrows
	434 054	7 299 470				
	434 054	7 299 470	118	ABP21308-TR22-021 – ABP21308-TR22-046	Sandy mud/muddy sand with pebbles, cobbles and small boulders, small streches of sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponges (*Asconema* sp.), sea cucumbers (*Parastichopus tremulus* and *Mesothuria intestinalis*), anemones (Ceriantharia, Actiniaria and *Actinostola callosa*), green spoon worms (*Bonellia viridis*), squat lobsters (Galatheoidea), shrimp (Caridea), saithe (*Pollachius virens*), greater forkbeard (*Phycis blennoides*), silvery pout (*Gadiculus argenteus*), tusk (*Brosme brosme*), ?haddock (*Melanogrammus aeglefinus*), redfish (Sebastidae), fish (Pisces). Faunal tubes and burrows
	434 004	7 299 577				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	434 004	7 299 577	31	ABP21308-TR22-047 – ABP21308-TR22-048	Sandy mud/muddy sand with a small boulder and occasional pebbles	Sponges (Porifera: massive/erect forms including: *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), cushion star (Valvatida), ?forams (Foraminifera), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), haddock (*Melanogrammus aeglefinus*), flatfish (Pleuronectiformes). Faunal burrows
	433 991	7 299 605				
	433 991	7 299 605	15	ABP21308-TR22-049 – ABP21308-TR22-053	Sandy mud/muddy sand with pebbles, cobbles and occasional small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), krill (Euphausiacea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), fish (Pisces). Faunal burrows
	433 984	7 299 618				
	433 984	7 299 618	21	-	Sandy mud/muddy sand	Sponges (Porifera: massive/erect forms including: *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 976	7 299 637				
	433 976	7 299 637	84	ABP21308-TR22-054 – ABP21308-TR22-060	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponge (*Asconema* sp.), anemones (*Actinostola callosa*), sea cucumber (*Parastichopus tremulus*), cushion star (*Porania pulvillus*), krill (Euphausiacea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), greater forkbeard (*Phycis blennoides*), redfish (Sebastidae). Faunal tubes and burrows
	433 940	7 299 713				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 940	7 299 713	13	ABP21308-TR22-061 – ABP21308-TR22-062	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	433 934	7 299 724				
	433 934	7 299 724	16	ABP21308-TR22-063 – ABP21308-TR22-065	Sandy mud/muddy sand with pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 927	7 299 738				
	433 927	7 299 738	99	ABP21308-TR22-066 – ABP21308-TR22-068	Sandy mud/muddy sand with patches of pebbles, cobbles and occasional small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), flatfish (Pleuronectiformes), redfish (Sebastidae). Faunal burrows
	433 884	7 299 827				
	433 884	7 299 827	22	ABP21308-TR22-069 – ABP21308-TR22-074	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal tubes and burrows
	433 864	7 299 835				
	433 864	7 299 835	19	-	Sandy mud/muddy sand	Sponges (Porifera: mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 845	7 299 838				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 845	7 299 838	12	ABP21308-TR22-075 – ABP21308-TR22-076	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal tubes and burrows
	433 835	7 299 844				
	433 835	7 299 844	52	ABP21308-TR22-077	Sandy mud/muddy sand with patches of pebbles, cobbles and occasional small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), ?starfish (*Henricia* sp.), anemone (Actiniaria), ?forams (Foraminifera), shrimp (Caridea), squat lobster (Galatheoidea), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), flatfish (Pleuronectiformes), redfish (Sebastidae), fish (Pisces). Faunal burrows
	433 852	7 299 893				
	433 852	7 299 893	15	ABP21308-TR22-078 – ABP21308-TR22-080	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), anemone (Actiniaria), bryozoan (*Reteporella* sp.), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 843	7 299 905				
	433 843	7 299 905	82	ABP21308-TR22-081 – ABP21308-TR22-086	Sandy mud/muddy sand with a patch of cobbles	Sponges (Porifera: massive forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Pisces). Faunal tubes and burrows
	433 791	7 299 969				
	433 791	7 299 969	18	ABP21308-TR22-087 – ABP21308-TR22-089	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), glass sponge (*Asconema* sp.), anemones (*Actinostola callosa*), cushion star (*Porania pulvillus*), green spoon worm (*Bonellia viridis*), saithe (*Pollachius virens*), redfish (Sebastide). Faunal burrows
	433 800	7 299 985				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 800	7 299 985	29	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect forms; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 796	7 300 014				
	433 796	7 300 014	42	ABP21308-TR22-090 – ABP21308-TR22-097	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), glass sponges (*Asconema* sp.), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal tubes and burrows
	433 777	7 300 051				
	433 777	7 300 051	20	-	Sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect forms; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 769	7 300 069				
	433 769	7 300 069	11	ABP21308-TR22-098	Sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), saithe (*Pollachius virens*), redfish (Sebastidae), fish (Pisces). Faunal tubes and burrows
	433 764	7 300 079				
	433 764	7 300 079	128	ABP21308-TR22-099 – ABP21308-TR22-105	Sandy mud/muddy sand with patches of pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), bryozoan (*Reteporella* sp.), saithe (*Pollachius virens*), silvery pout (*Gadiculus argenteus*), redfish (Sebastidae), fish (Pisces). Faunal tubes, tracks and burrows
	433 709	7 300 195				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 709	7 300 195	104	ABP21308-TR22-106 – ABP21308-TR22-109	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), soft coral (*Paragorgia arborea*), anemone (Ceriantharia), sea cucumbers (*Parastichopus tremulus*), starfish (*Henricia* sp.), cushion star (*Porania pulvillus*), bryozoan (*Reteporella* sp.), saithe (*Pollachius virens*), rabbitfish (*Chimaera monstrosa*), redfish (Sebastidae). Faunal tubes and burrows
	433 664	7 300 289				
	433 664	7 300 289	21	-	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including, Axinellidae and *Phakellia* sp.; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 654	7 300 307				
	433 654	7 300 307	89	ABP21308-TR22-110 – ABP21308-TR22-111	Sandy mud/muddy sand, a small boulder and occasional pebbles and cobbles	Sponges (Porifera: massive/erect/branching/stalked forms including Axinellidae, *Mycale lingua* and *Stylocordyla borealis*; encrusting forms including *Hymedesmia paupertas*; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), glass sponges (*Asconema* sp.), anemone (Actiniaria), sea cucumbers (*Parastichopus tremulus* and *Mesothuria intestinalis*), squat lobster (Galatheoidea), saithe (*Pollachius virens*), redfish (Sebastidae), flatfish (Pleuronectiformes). Faunal tubes and burrows
	433 614	7 300 386				
	433 614	7 300 386	104	ABP21308-TR22-112 – ABP21308-TR22-115	Sandy mud/muddy sand, a small boulder with patches of pebbles and cobbles	Sponges (Porifera: massive/erect/branching forms including, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumber (*Parastichopus tremuus*), saithe (*Pollachius virens*), rabbitfish (*Chimaera monstrosa*), redfish (Sebastidae). Faunal burrows
	433 587	7 300 486				

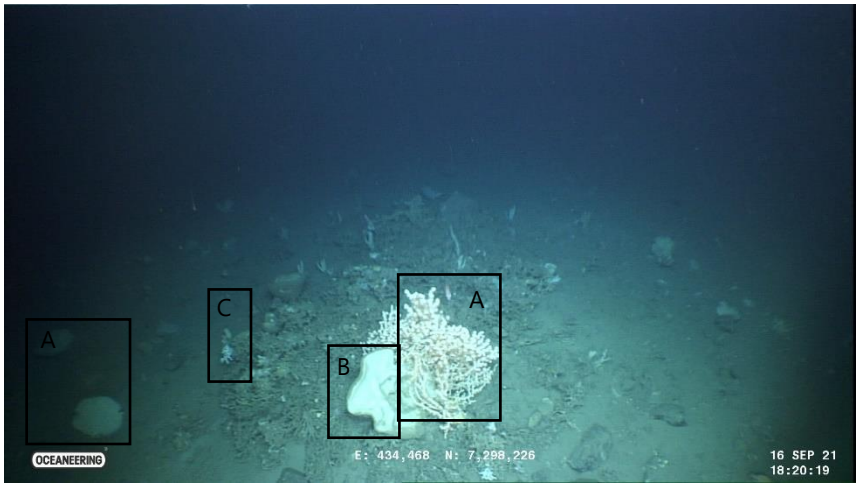
Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 587	7 300 486	184	ABP21308-TR22-116 – ABP21308-TR22-145	Sandy mud/muddy sand with cobbles, small boulders and patches of dead coral framework and rubble	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including ?Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft corals (Alcyonacea including *Paragorgia arborea*), anemone (Ceriantharia and Actiniaria including *Actinostola callosa*), crinoid (Crinoidea), sea urchin (Echinoidea), cushion stars (Valvatida including *Porania pulvillus*), file shell (*Acesta excavata*), crab (Decapoda), saithe (*Pollachius virens*), redfish (Sebastidae). Dead *Desmophyllum pertusum* framework and rubble
	433 519	7 300 657				
	433 519	7 300 657	20	ABP21308-TR22-146	Sandy mud/muddy sand	Sponges (Porifera: massive/erect forms; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneidae), sea cucumbers (*Parastichopus tremulus*), saithe (*Pollachius virens*). Faunal burrows
	433 499	7 300 654				
	433 499	7 300 654	80	ABP21308-TR22-147 – ABP21308-TR22-156	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), soft corals (*Paragorgia arborea*), sea cucumbers (*Parastichopus tremulus*), cushion star (Valvatida), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 455	7 300 721				
	433 455	7 300 721	13	-	Slightly gravelly sandy mud/muddy sand	Sponges (Porifera: massive/erect/branching forms including Axinellidae), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), fish (Pisces). Faunal burrows
	433 451	7 300 733				

Geodetic Parameters: ED50, UTM Zone 32N, CM 9° E, North of 62 [m]						
Transect	Video Coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
	Easting	Northing				
	433 451	7 300 733	46	ABP21308-TR22-157 – ABP21308-TR22-158	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders	Sponges (Porifera: massive/erect/branching forms including Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms including *Hymedesmia paupertas*), anemone (Actiniaria), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 414	7 300 761				
	433 414	7 300 761	46	-	Slightly gravelly sandy mud/muddy sand with occasional cobbles	Sponges (Porifera: massive/erect/branching forms including Axinellidae; mud-covered sponges possibly Biemnidae/Tethyidae/Tetillidae/Theneida), sea cucumber (*Parastichopus tremulus*), saithe (*Pollachius virens*), redfish (Sebastidae). Faunal burrows
	433 409	7 300 807				
	433 409	7 300 807	101	ABP21308-TR22-159 – ABP21308-TR22-168	Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders, a patch of dead coral framework	Cold-water coral (*Desmophyllum pertusum*), sponges (Porifera: massive/erect/branching forms including ?Geodiidae, Axinellidae, *Phakellia* sp. and *Mycale lingua*; encrusting forms), gorgonian corals (*Paragorgia arborea* and *Anthothela grandiflora*), anemones (Ceriantharia and Actiniaria including *Actinostola callosa*), sea cucumbers (*Parastichopus tremulus*), starfish (*Henricia* sp.), file shells (*Acesta excavata*), squat lobster (*Munida* sp.), saithe (*Pollachius virens*), tusk (*Brosme brosme*), redfish (Sebastidae), fish (Pisces). Dead *Desmophyllum pertusum* framework. Faunal burrows
	433 374	7 300 902				
Notes Inc. = Including ? = Identification is uncertain						

Appendix C

Seabed Photographs

TRANSECT ABP21308-TR01



Photograph:
ABP21308-TR01-005

Easting: 434 468.3 mE

Northing: 7 298 226.8 mN

Sediment Type:

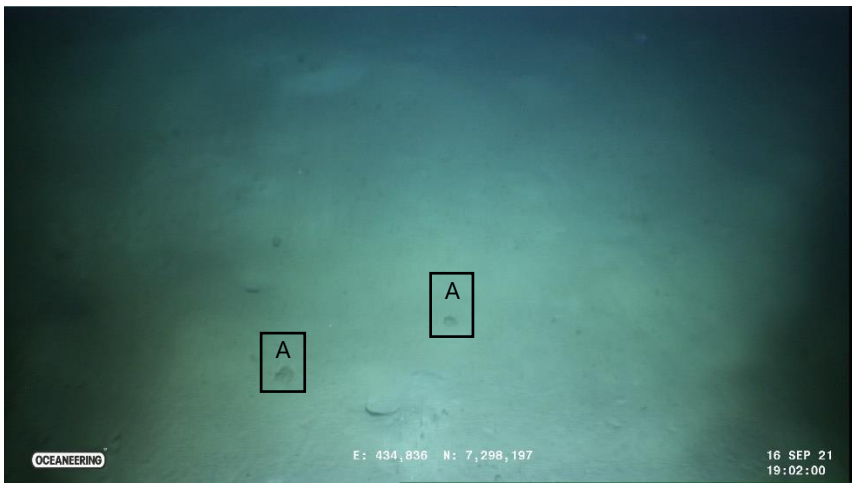
Coral framework on sandy mud/muddy sand

Fauna:

A: Gorgonian coral (*Paragorgia arborea*)

B: Sponges (Axinellidae)

C: Cold-water coral (*Desmophyllum pertusum*)



Photograph:
ABP21308-TR01-026

Easting: 434 837.0 mE

Northing: 7 298 197.7 mN

Sediment Type:

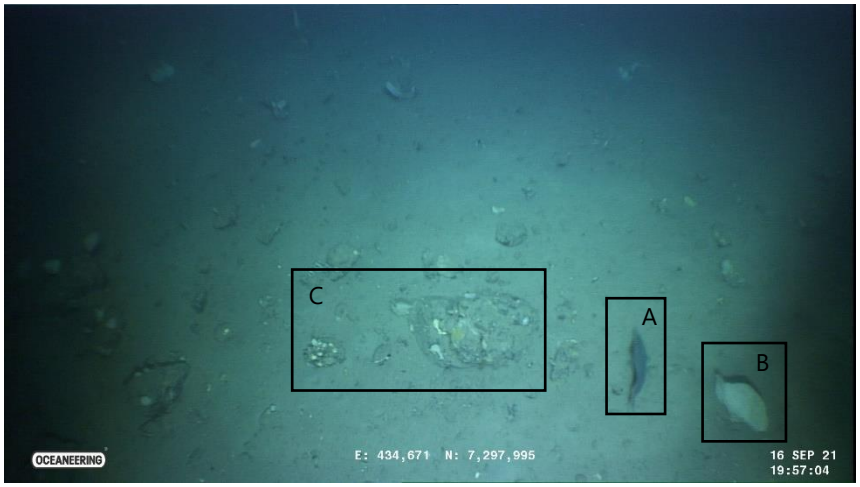
Sandy mud/muddy sand

Fauna:

A: Sponges (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

Faunal burrows

TRANSECT ABP21308-TR02



Photograph:
ABP21308-TR02-010

Easting: 434 670.8 mE

Northing: 7 297 996.1 mN

Sediment Type:

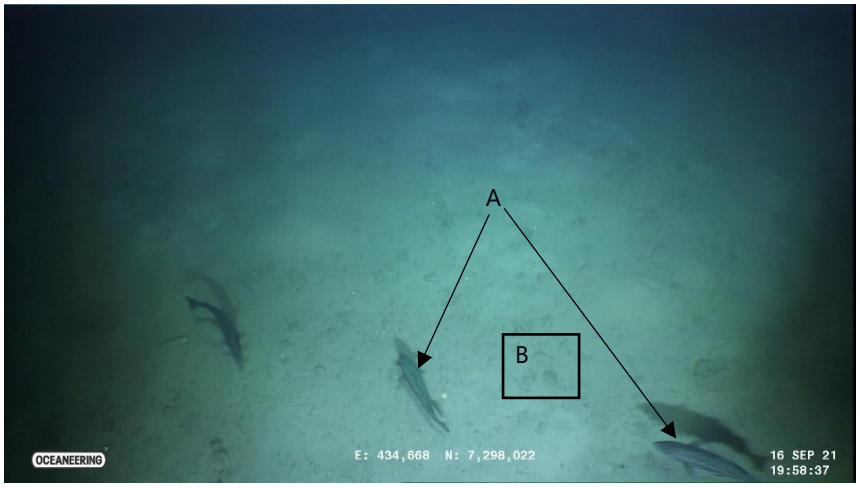
Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

A: Saithe (*Pollachius virens*)

B: Sponges (*Phakellia* sp.)

C: Encrusting sponges (Porifera)



Photograph:
ABP21308-TR02-027

Easting: 434 668.3 mE

Northing: 7 298 022.2 mN

Sediment Type:

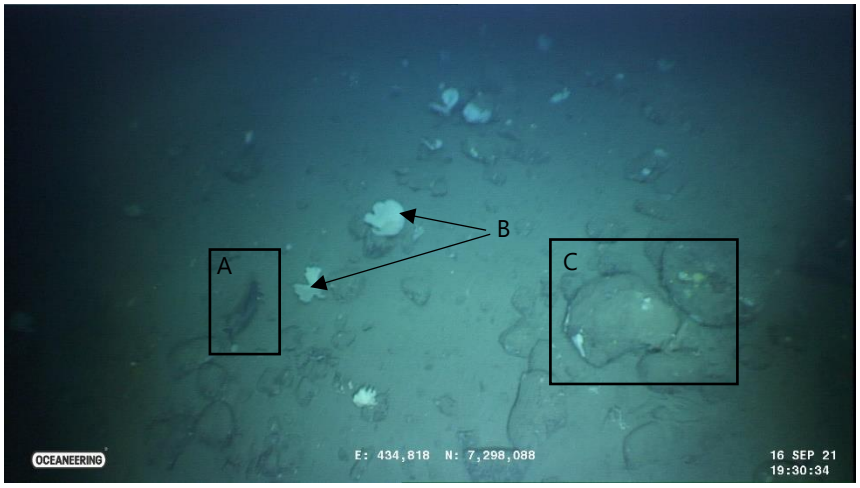
Sandy mud/muddy sand

Fauna:

A: Saithe (*Pollachius virens*)

B: Sponges (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

TRANSECT ABP21308-TR03



Photograph:
ABP21308-TR03-012

Easting: 434 818.1 mE

Northing: 7 298 087.8 mN

Sediment Type:

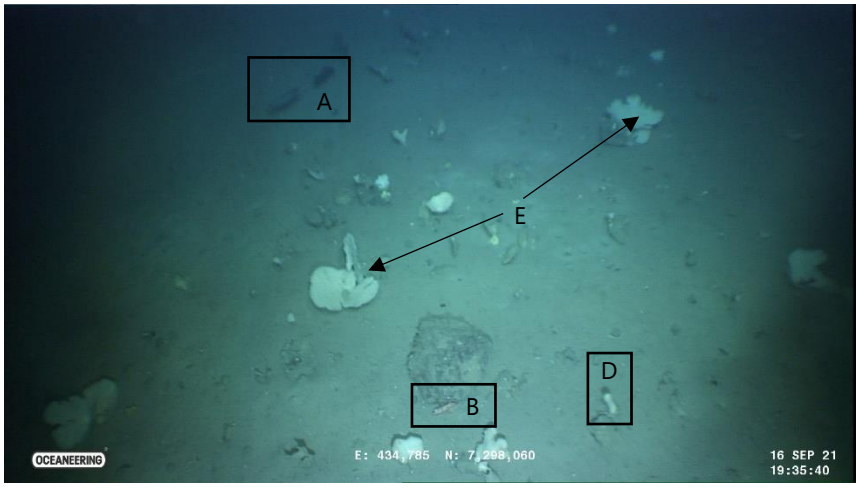
Sandy mud/muddy sand with cobbles and small boulders

Fauna:

A: Saithe (*Pollachius virens*)

B: Sponges (*Phakellia* sp.)

C: Encrusting sponges (Porifera)



Photograph:
ABP21308-TR03-025

Easting: 434 785.6 mE

Northing: 7 298 060.6 mN

Sediment Type:

Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

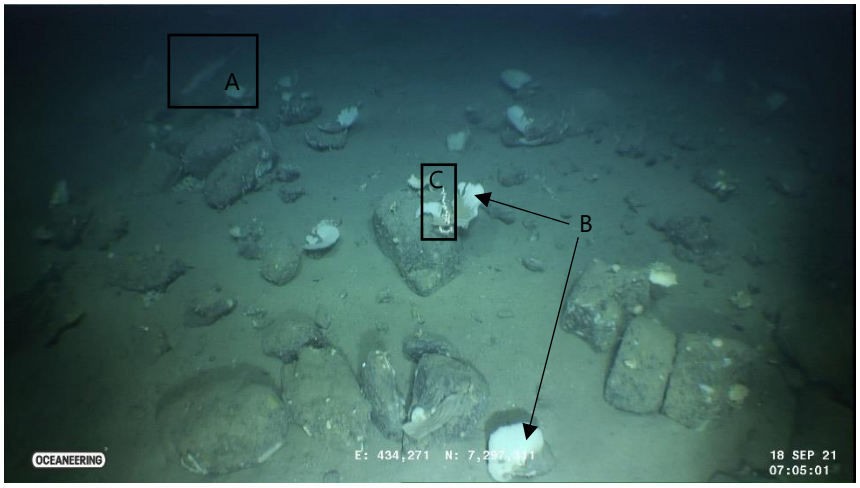
A: Saithe (*Pollachius virens*)

B: Redfish (Sebastidae)

C: Sponges (*Phakellia* sp.)

D: Sponges (*Mycale lingua*)

TRANSECT ABP21308-TR04



Photograph:
ABP21308-TR04-003

Easting: 434 271.8 mE

Northing: 7 297 310.9 mN

Sediment Type:

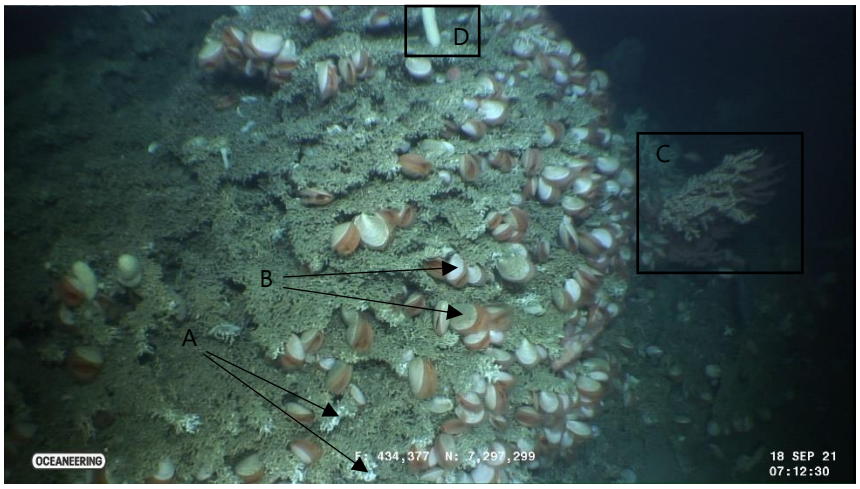
Sandy mud/muddy sand with cobbles and small boulders

Fauna:

A: Saithe (*Pollachius virens*)

B: Sponges (*Phakellia* sp.)

C: Gorgonian coral (*Paragorgia arborea*)



Photograph:
ABP21308-TR04-015

Easting: 434 378.0 mE

Northing: 7 297 299.6 mN

Sediment Type:

Coral framework

Fauna:

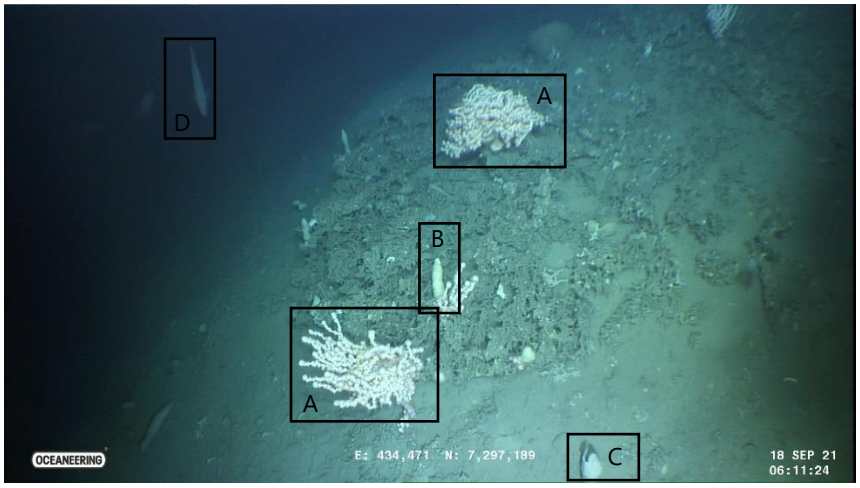
A: Cold-water coral (*Desmophyllum pertusum*)

B: File shell (*Acesta excavata*)

C: Gorgonian coral (*Paragorgia arborea*)

D: Sponge (*Mycale lingua*)

TRANSECT ABP21308-TR05



Photograph:
ABP21308-TR05-014

Easting: 434 470.9 mE

Northing: 7 297 189.7 mN

Sediment Type:

Coral framework on sandy mud/muddy sand

Fauna:

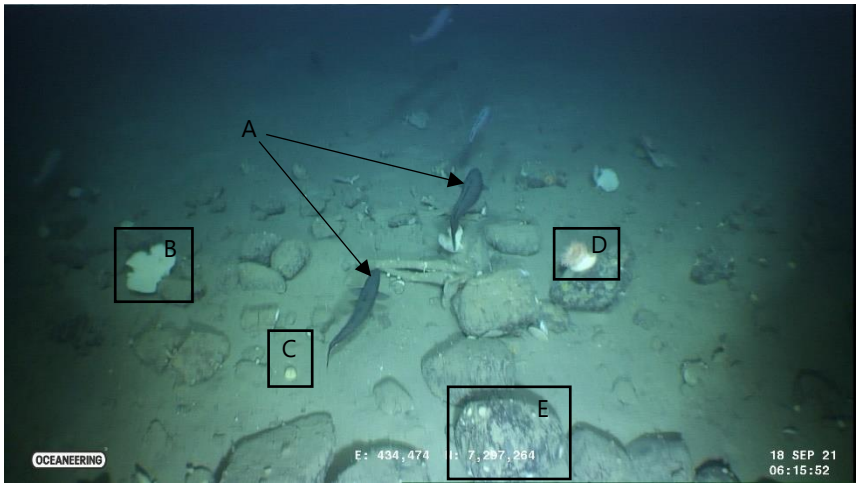
A: Gorgonian coral (*Paragorgia arborea*)

B: Sponge (*Mycale lingua*)

C: Sponge (Axinellidae)

D: Saithe (*Pollachius virens*)

Dead coral framework



Photograph:
ABP21308-TR05-021

Easting: 434 473.4 mE

Northing: 7 297 264.1 mN

Sediment Type:

Sandy mud/muddy sand with cobbles and small boulders

Fauna:

A: Saithe (*Pollachius virens*)

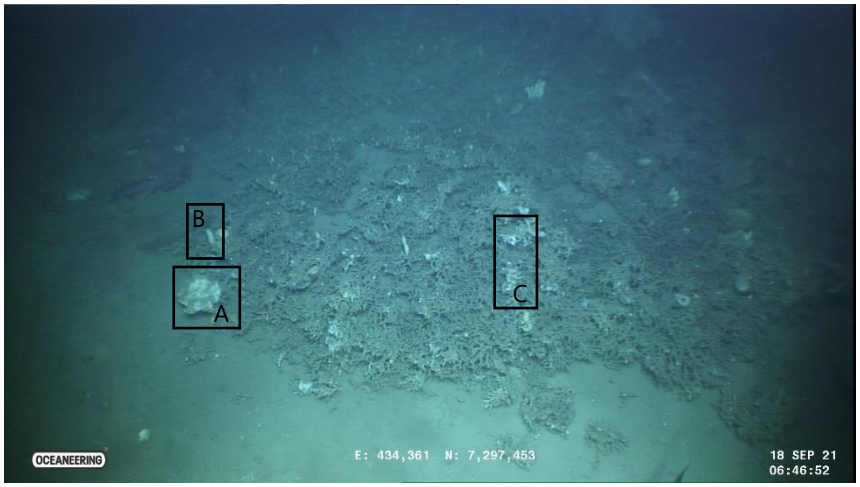
B: Sponge (*Phakellia* sp.)

C: Sponge (Polymastiidae)

D: Anemone (*Actinostola callosa*)

E: Encrusting sponges (Porifera)

TRANSECT ABP21308-TR06



Photograph:
ABP21308-TR06-021

Easting: 434 360.9 mE

Northing: 7 297 451.9 mN

Sediment Type:

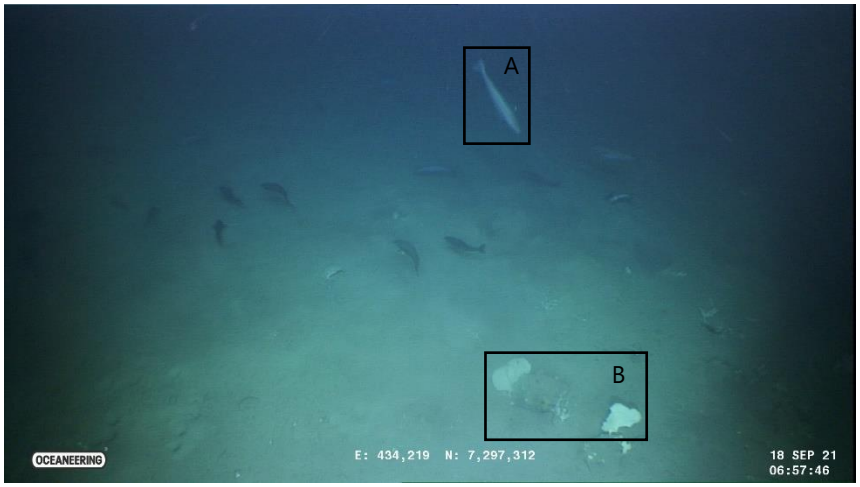
Coral framework on sandy mud/muddy sand

Fauna:

A: Sponge (Axinellidae)

B: Sponge (*Phakellia* sp.)

C: Cold-water coral (*Desmophyllum pertusum*)



Photograph:
ABP21308-TR06-037

Easting: 434 219.8 mE

Northing: 7 297 311.8 mN

Sediment Type:

Sandy mud/muddy sand with cobbles

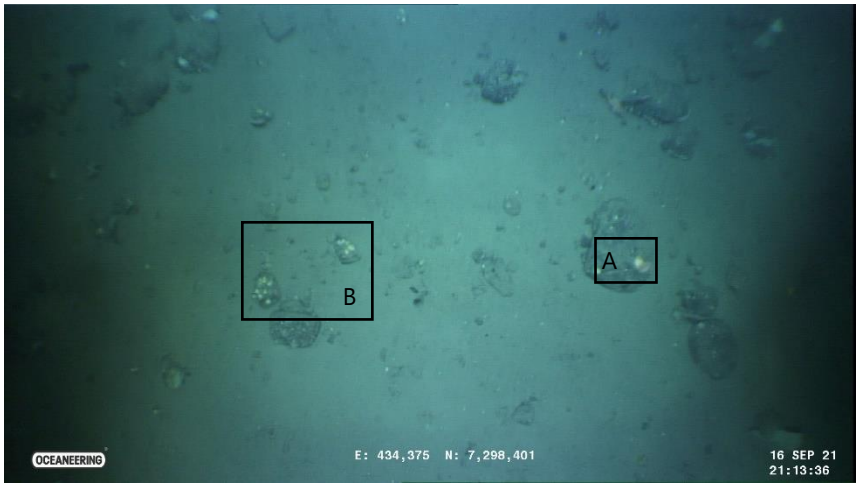
Fauna:

A: Saithe (*Pollachius virens*)

B: Sponge (*Phakellia* sp.)

Faunal burrows

TRANSECT ABP21308-TR07



Photograph:
ABP21308-TR07-021

Easting: 434 375.1 mE

Northing: 7 298 401.5 mN

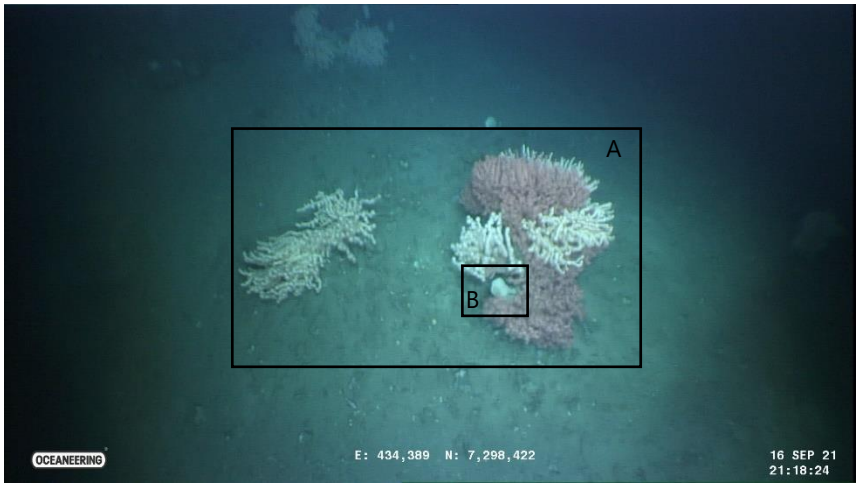
Sediment Type:

Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

A: Anemone (*Actinostola callosa*)

B: Encrusting sponges (Porifera)



Photograph:
ABP21308-TR07-030

Easting: 434 389.9 mE

Northing: 7 298 423.0 mN

Sediment Type:

Coral rubble on sandy mud/muddy sand

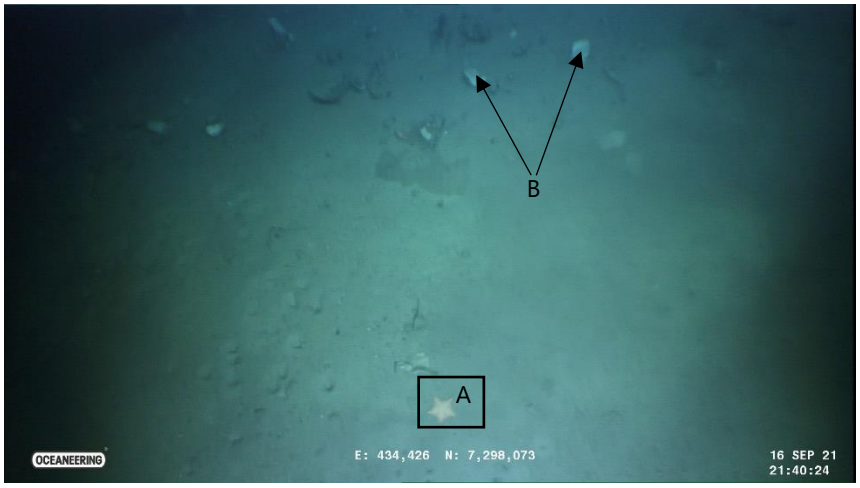
Fauna:

A: Gorgonian coral (*Paragorgia arborea*)

B: Sponges (Porifera)

Coral rubble

TRANSECT ABP21308-TR08



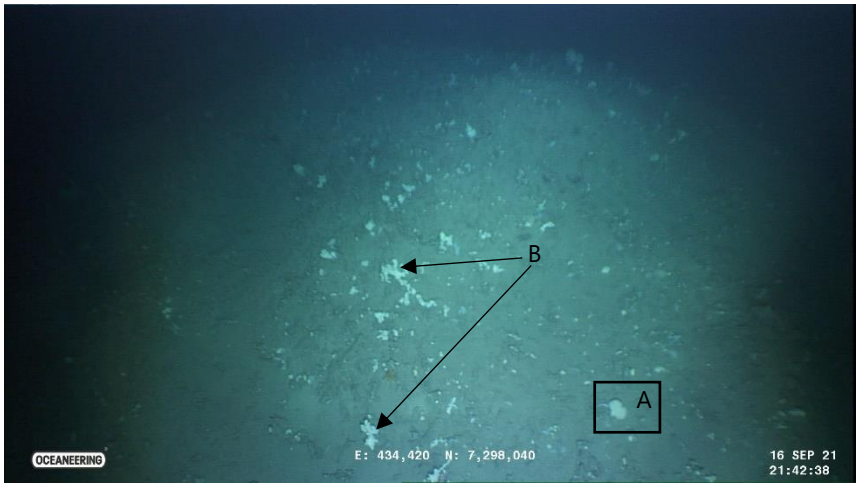
Photograph:
ABP21308-TR08-013

Easting: 434 426.3 mE
Northing: 7 298 073.0 mN

Sediment Type:
Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:
A: Cushion star (*Porania pulvillus*)
B: Sponges (Porifera)

Faunal burrows



Photograph:
ABP21308-TR08-022

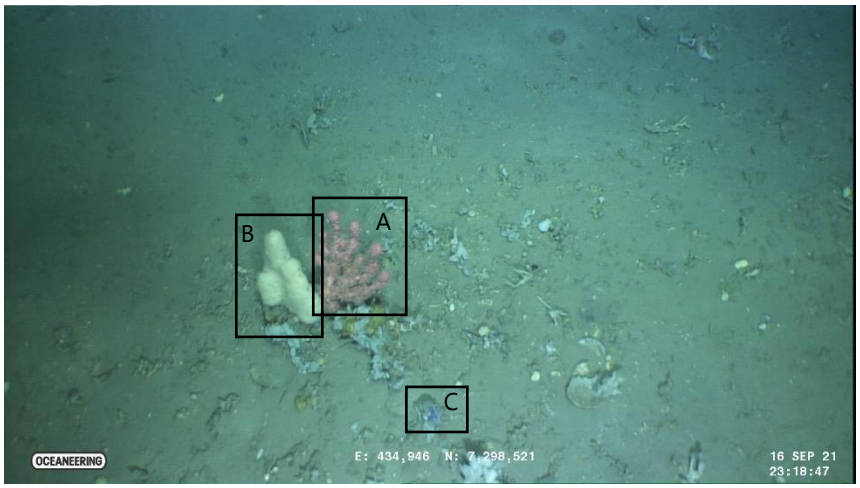
Easting: 434 420.2 mE
Northing: 7 298 040.6 mN

Sediment Type:
Coral rubble on sandy mud/muddy sand

Fauna:
A: Sponge (*Phakellia* sp.)
B: Sponges (Porifera)

Coral rubble

TRANSECT ABP21308-TR09



Photograph:
ABP21308-TR09-006

Easting: 434 946.3 mE

Northing: 7 298 521.7 mN

Sediment Type:

Coral rubble on sandy mud/muddy sand

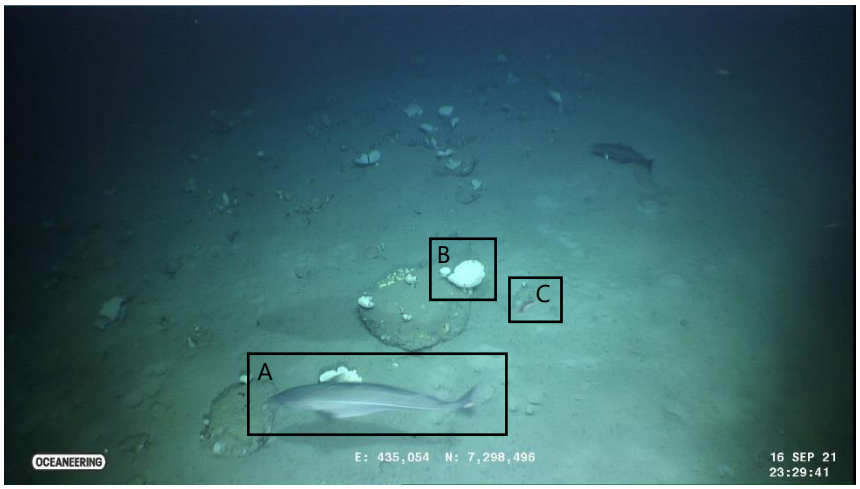
Fauna:

A: Gorgonian coral (*Paragorgia arborea*)

A: Sponge (*Phakellia* sp.)

Encrusting sponges (Porifera including *Hymedeamia paupertas*)

Coral rubble



Photograph:
ABP21308-TR09-033

Easting: 435 053.6 mE

Northing: 7 298 497.7 mN

Sediment Type:

Sandy mud/muddy sand with cobbles and small boulders

Fauna:

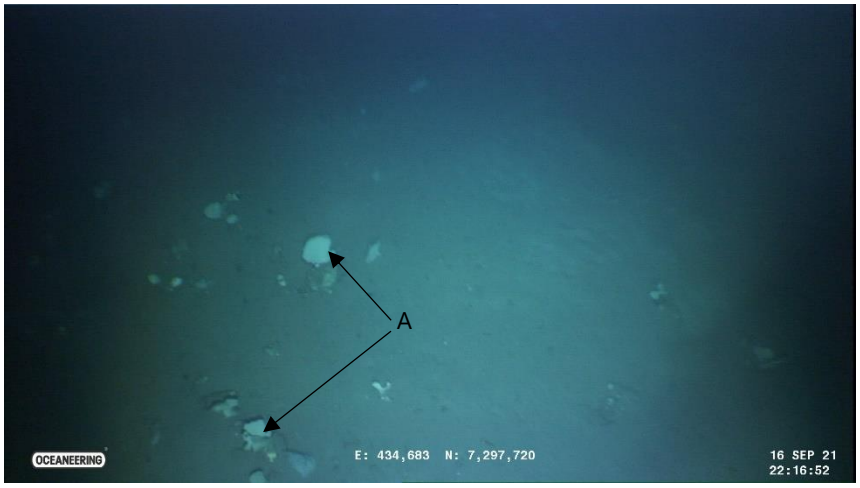
A: Saithe (*Pollachius virens*)

B: Sponge (*Phakellia* sp.)

C: Sea cucumber (*Parastichopus tremulus*)

Faunal burrows

TRANSECT ABP21308-TR10



Photograph:
ABP21308-TR10-017

Easting: 434 684.2 mE
Northing: 7 297 720.2 mN

Sediment Type:
Sandy mud/muddy sand with cobbles

Fauna:
A: Sponge (*Phakellia* sp.)

Faunal burrows



Photograph:
ABP21308-TR10-038

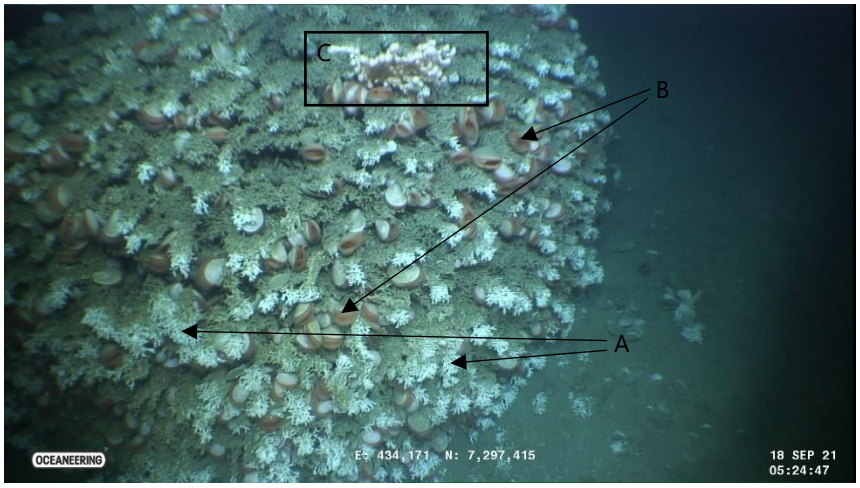
Easting: 434 735.4 mE
Northing: 7 297 695.2 mN

Sediment Type:
Sandy mud/muddy sand

Fauna:
A: Sea cucumber
(*Parastichopus tremulus*)

Faunal burrows

TRANSECT ABP21308-TR11



Photograph:
ABP21308-TR11-028

Easting: 434 171.5 mE

Northing: 7 297 415.1 mN

Sediment Type:

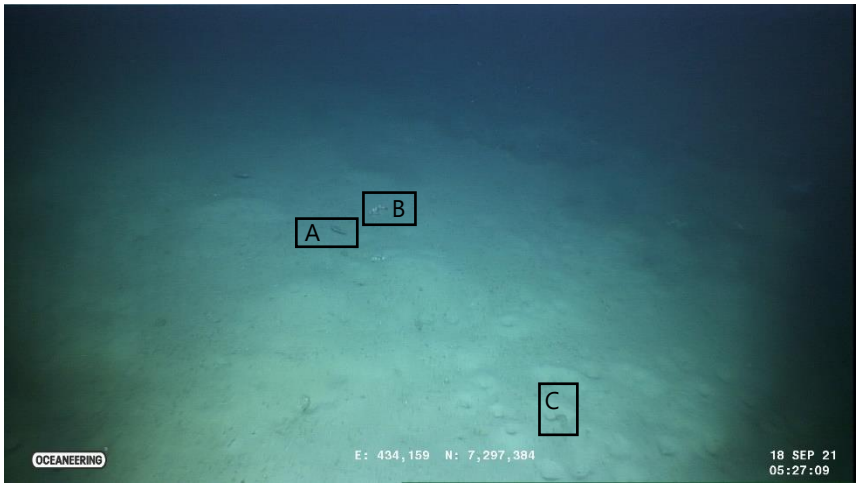
Coral framework

Fauna:

A: Cold-water coral (*Desmophyllum pertusum*)

B: File shell (*Acesta excavata*)

C: Gorgonian coral (*Paragorgia arborea*)



Photograph:
ABP21308-TR11-038

Easting: 434 158.9 mE

Northing: 7 297 383.5 mN

Sediment Type:

Sandy mud/muddy sand

Fauna:

A: Silvery pout (*Gadiculus argenteus*)

B: Redfish (Sebastidae)

C: Sponge (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

Faunal burrows

TRANSECT ABP21308-TR13



Photograph:
ABP21308-TR13-002

Easting: 434 641.2 mE

Northing: 7 299 193.6 mN

Sediment Type:

Sandy mud/muddy sand

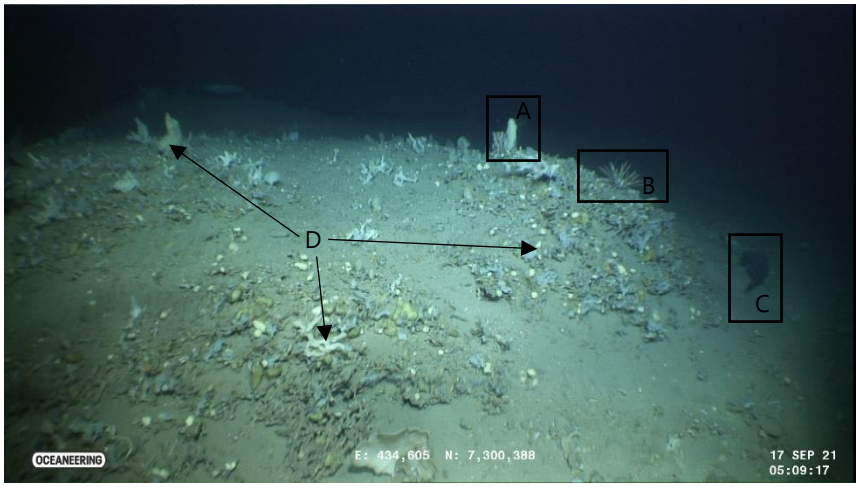
Fauna:

A: Sponge (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

B: Sponge (*Stylocordyla borealis*)

C: Crab (Brachyura)

Faunal burrows



Photograph:
ABP21308-TR13-260

Easting: 434 605.3 mE

Northing: 7 300 388.1 mN

Sediment Type:

Dead coral framework on sandy mud/muddy sand

Fauna:

A: Sponge (*Mycale lingua*)

B: Pencil urchin (*Cidaris cidaris*)

C: Saithe (*Pollachius virens*)

D: Sponges (Porifera)

Dead coral framework

TRANSECT ABP21308-TR14

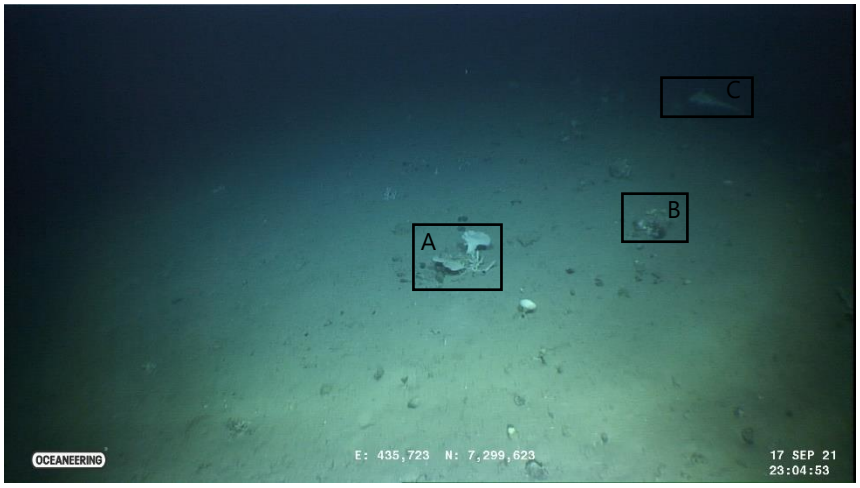


Photograph:
ABP21308-TR14-040

Easting: 436 275.4 mE
Northing: 7 300 377.4 mN

Sediment Type:
Sandy mud/muddy sand

Fauna:
No fauna observed



Photograph:
ABP21308-TR14-187

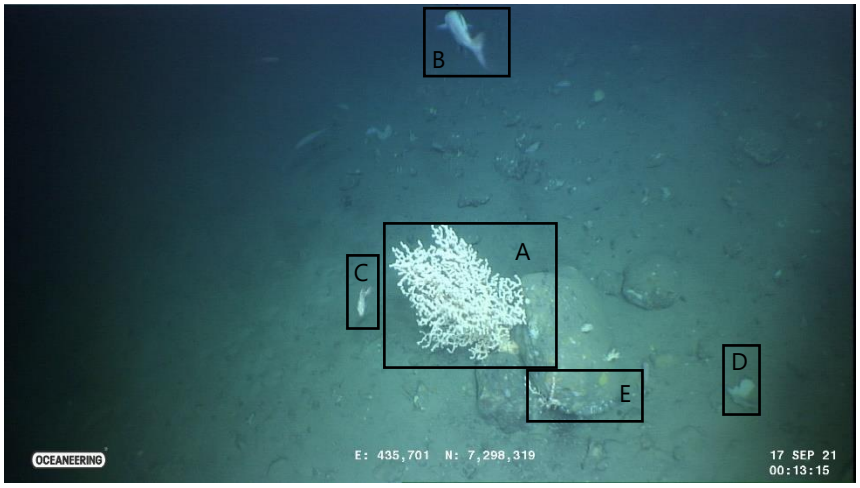
Easting: 435 722.9 mE
Northing: 7 299 622.9 mN

Sediment Type:
Sandy mud/muddy sand with pebbles

Fauna:
A: Sponge (Axinellidae)
B: Encrusting sponges (Porifera)
C: Rabbitfish (*Chimaera monstrosa*)

Faunal burrows

TRANSECT ABP21308-TR15



Photograph: ABP21308-TR15-008

Easting: 435 701.4 mE

Northing: 7 298 319.4 mN

Sediment Type:

Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

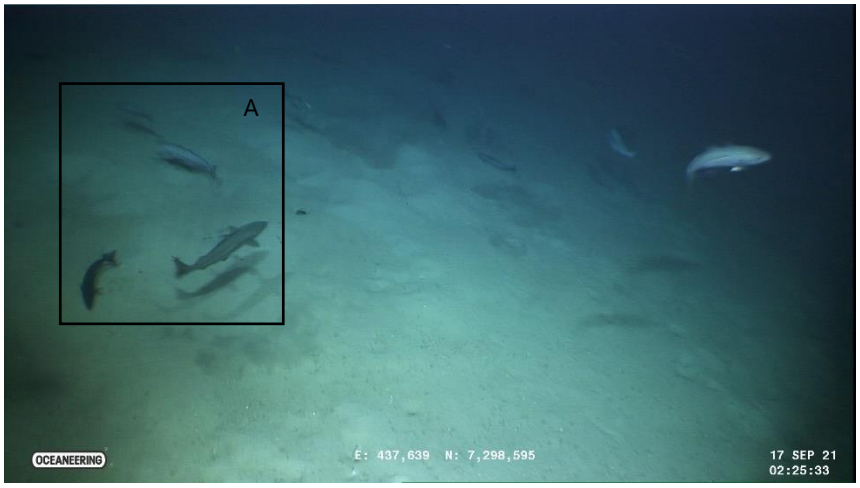
A: Gorgonian coral (*Paragorgia arborea*)

B: Saithe (*Pollachius virens*)

C: Redfish (Sebastidae)

D: Sponge (Axinellidae)

E: Encrusting sponges (Porifera)



Photograph: ABP21308-TR15-246

Easting: 437 639.3 mE

Northing: 7 298 595.5 mN

Sediment Type:

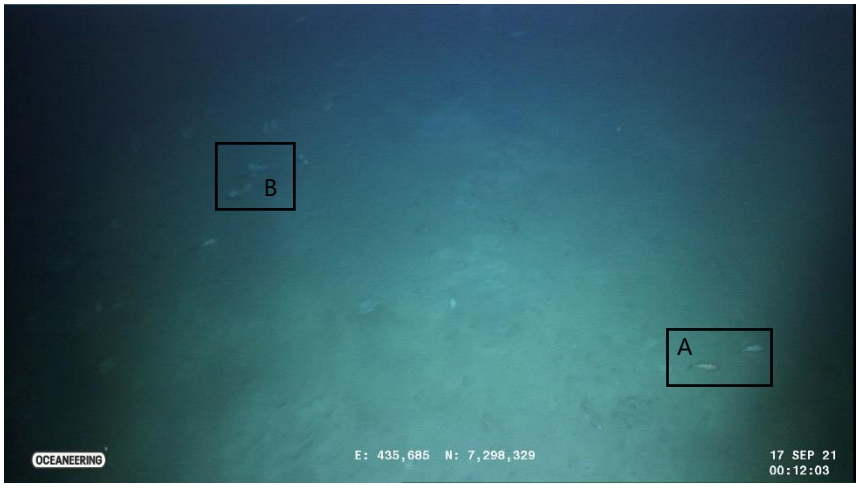
Sandy mud/muddy sand

Fauna:

A: Saithe (*Pollachius virens*)

Faunal burrows

TRANSECT ABP21308-TR16



Photograph:
ABP21308-TR16-004

Easting: 435 566.0 mE
Northing: 7 297 729.7 mN

Sediment Type:
Sandy mud/muddy sand

Fauna:
A: Redfish (Sebastidae)
B: Sponge (Porifera)



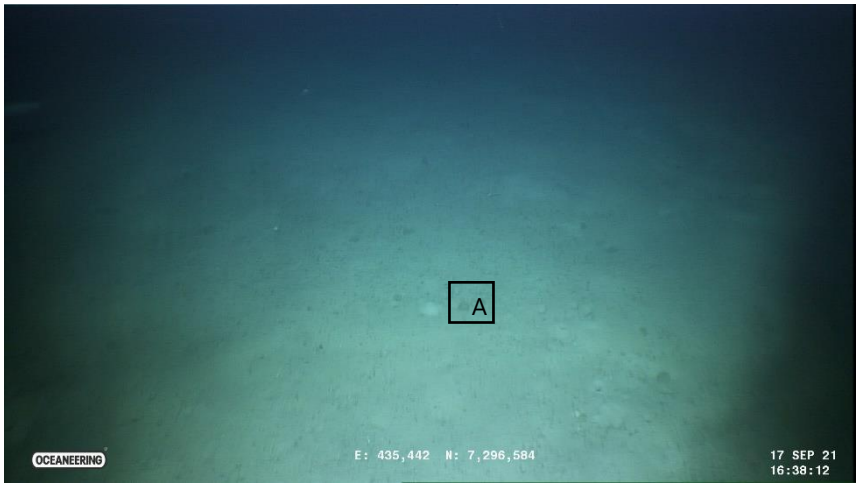
Photograph:
ABP21308-TR16-245

Easting: 436 958.4 mE
Northing: 7 297 060.5 mN

Sediment Type:
Sandy mud/muddy sand with a small boulder

Fauna:
A: Saithe (*Pollachius virens*)
B: Sponge (Porifera)

TRANSECT ABP21308-TR17



Photograph: ABP21308-TR17-084

Easting: 435 442.6 mE

Northing: 7 296 585.4 mN

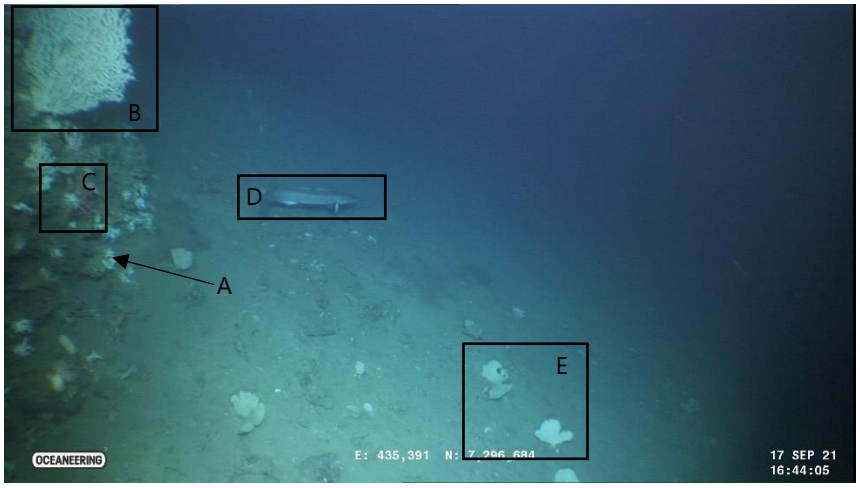
Sediment Type:

Sandy mud/muddy sand

Fauna:

A: Sponge (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

Faunal burrows



Photograph: ABP21308-TR17-088

Easting: 435 391.3 mE

Northing: 7 296 684.5 mN

Sediment Type:

Coral framework and cobbles on sandy mud/muddy sand

Fauna:

A: Cold-water coral (*Desmophyllum pertusum*)

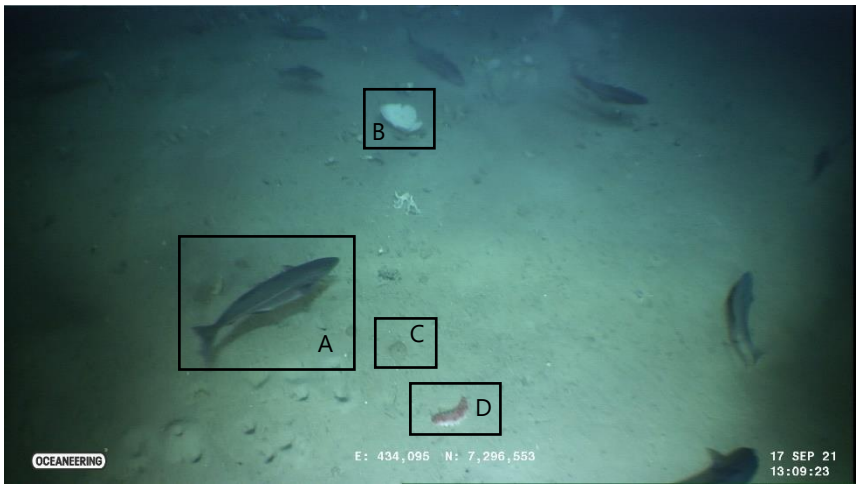
B: Gorgonian coral (*Paragorgia arborea*)

C: Pencil urchin (*Cidaris cidaris*)

D: Ling (*Molva molva*)

E: Sponge (*Phakellia* sp.)

TRANSECT ABP21308-TR18



Photograph:
ABP21308-TR18-045

Easting: 434 096.2 mE

Northing: 7 296 553.4 mN

Sediment Type:

Sandy mud/muddy sand with pebbles

Fauna:

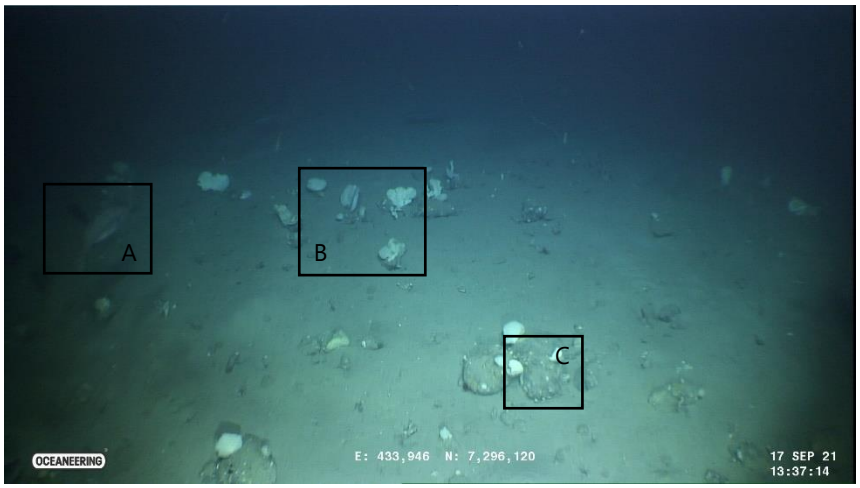
A: Saithe (*Pollachius virens*)

B: Sponge (*Phakellia* sp.)

C: Sponge (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)

D: Sea cucumber (*Parastichopus tremulus*)

Faunal burrows



Photograph:
ABP21308-TR18-084

Easting: 433 946.0 mE

Northing: 7 296 120.4 mN

Sediment Type:

Sandy mud/muddy sand with cobbles and small boulders

Fauna:

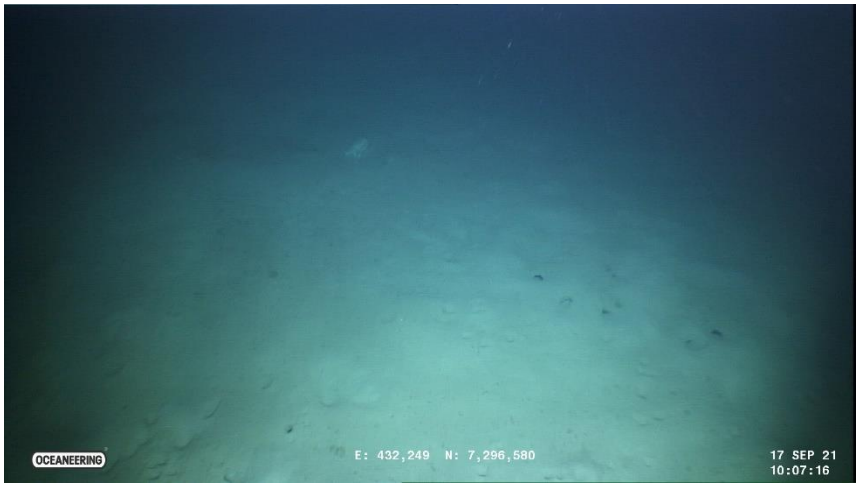
A: Saithe (*Pollachius virens*)

B: Sponge (*Phakellia* sp.)

C: Encrusting sponges (Porifera)

Faunal burrows

TRANSECT ABP21308-TR19

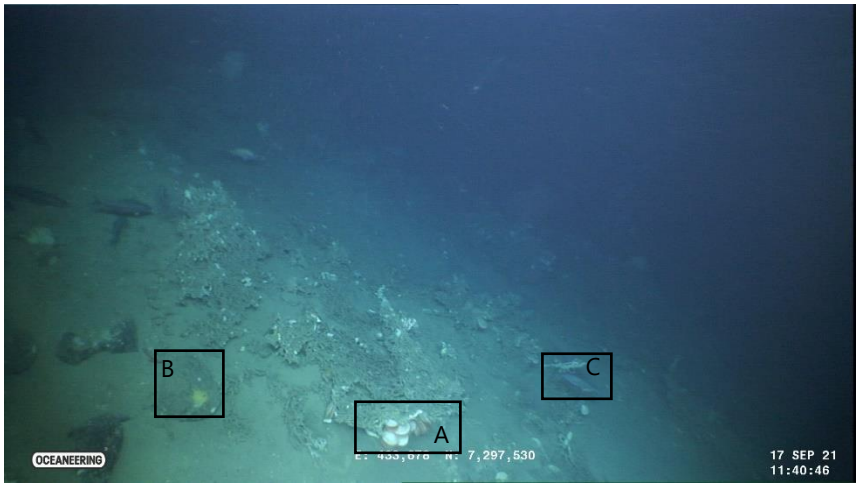


Photograph:
ABP21308-TR19-003

Easting: 432 250.3 mE
Northing: 7 296 580.9 mN

Sediment Type:
Sandy mud/muddy sand

Fauna:
Faunal burrows



Photograph:
ABP21308-TR19-067

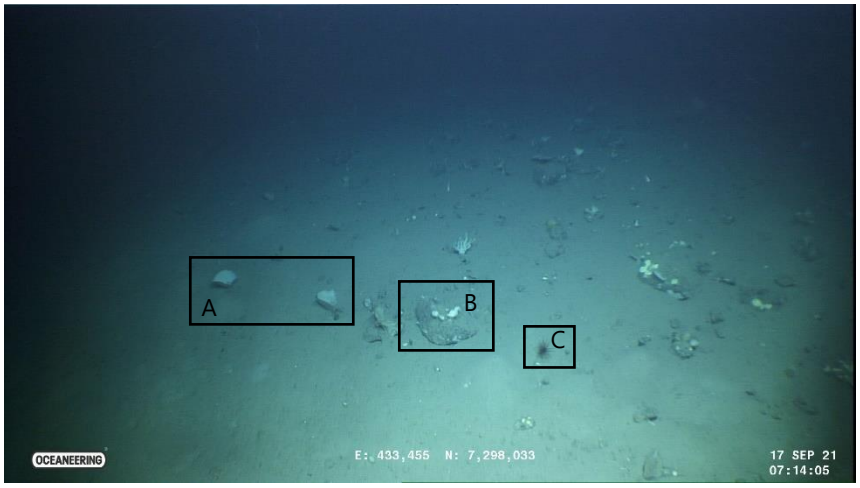
Easting: 433 678.3 mE
Northing: 7 297 530.5 mN

Sediment Type:
Coral framework and small boulders on sandy mud/muddy sand

Fauna:
A: File shell (*Acesta excavata*)
B: Encrusting sponges (Porifera)
C: Saithe (*Pollachius virens*)

Dead coral framework

TRANSECT ABP21308-TR20



Photograph:
ABP21308-TR20-017

Easting: 433 455.3 mE

Northing: 7 298 033.2 mN

Sediment Type:

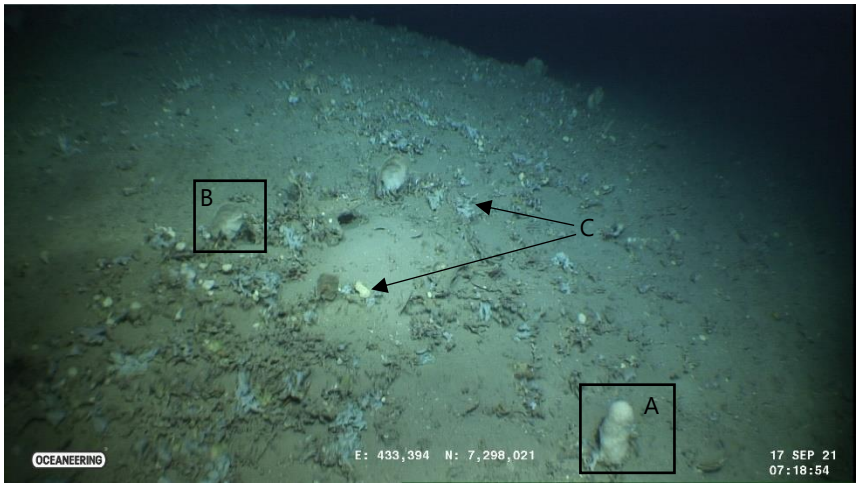
Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

A: Sponge (*Phakellia* sp.)

B: Encrusting sponges (Porifera)

C: Anemone (Ceriantharia)



Photograph:
ABP21308-TR20-021

Easting: 433 393.9 mE

Northing: 7 298 021.2 mN

Sediment Type:

Coral framework on sandy mud/muddy sand

Fauna:

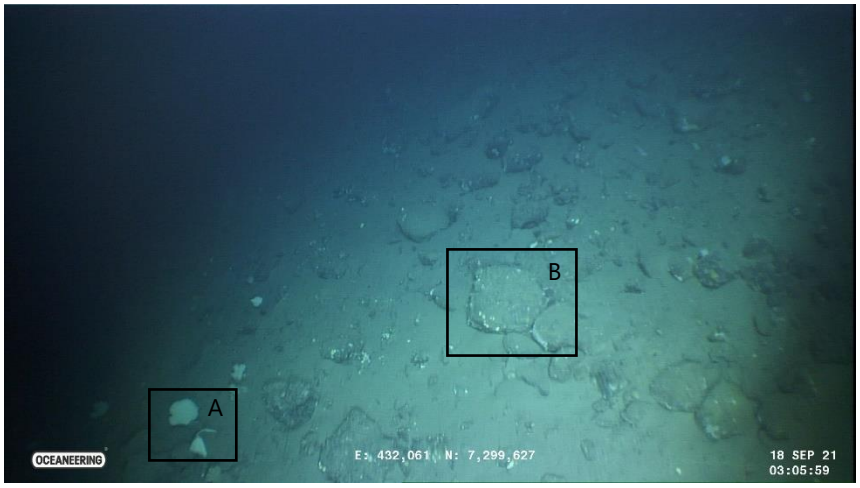
A: Sponge (*Mycale lingua*)

B: Sponge (*Phakellia* sp.)

C: Sponge (Porifera)

Dead coral framework and rubble

TRANSECT ABP21308-TR21



Photograph:
ABP21308-TR21-003

Easting: 432 061.3 mE

Northing: 7 299 627.3 mN

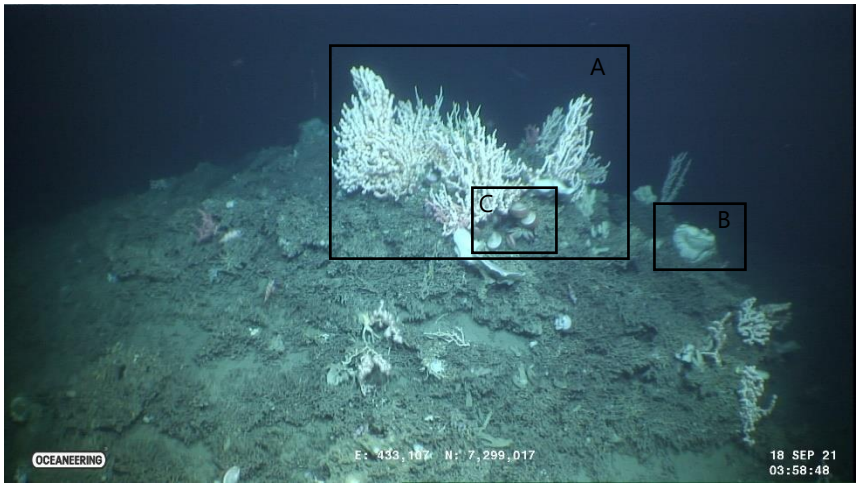
Sediment Type:

Sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

A: Sponge (*Phakellia* sp.)

B: Encrusting sponges (Porifera)



Photograph:
ABP21308-TR21-157

Easting: 433 107.3 mE

Northing: 7 299 017.7 mN

Sediment Type:

Coral framework

Fauna:

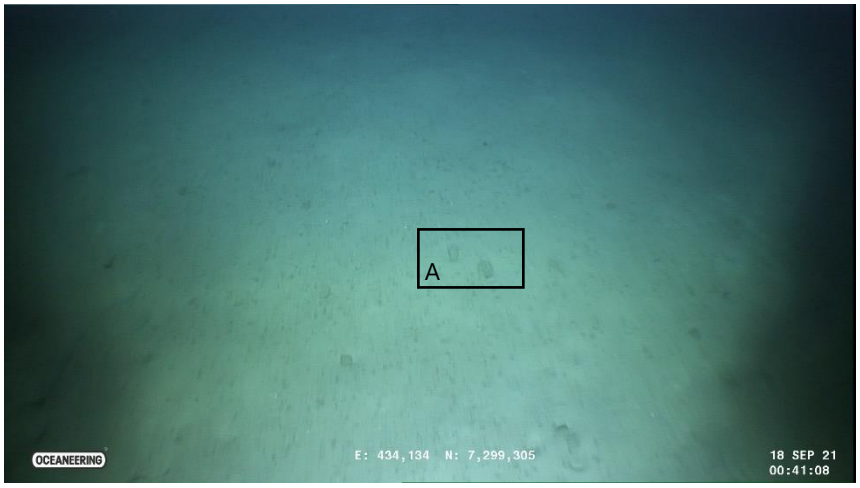
A: Gorgonian coral (*Paragorgia arborea*)

B: Sponge (Geodiidae)

C: File shell (*Acesta excavata*)

Dead coral framework

TRANSECT ABP21308-TR22



Photograph:
ABP21308-TR22-017

Easting: 434 134.3 mE

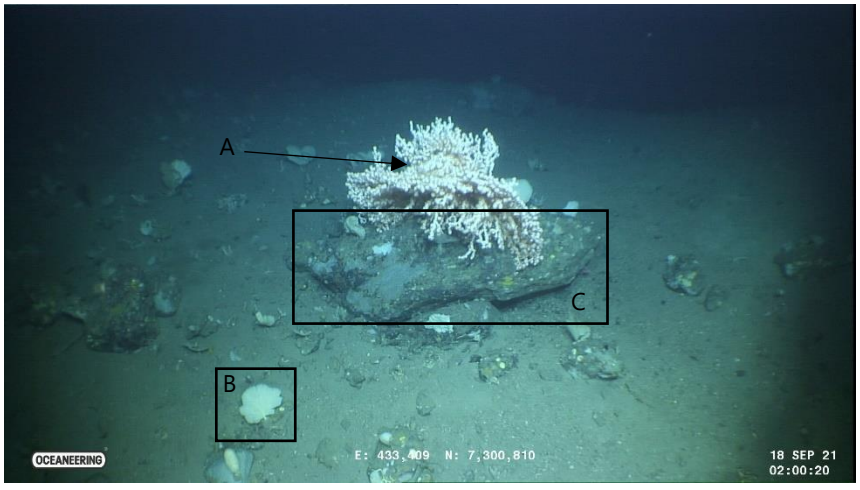
Northing: 7 299 306.1 mN

Sediment Type:

Sandy mud/muddy sand

Fauna:

A: Sponge (possibly Biemnidae/Tethyidae/Tetillidae/ Theneidae)



Photograph:
ABP21308-TR22-160

Easting: 433 409.4 mE

Northing: 7 300 810.6 mN

Sediment Type:

Slightly gravelly sandy mud/muddy sand with pebbles, cobbles and small boulders

Fauna:

A: Gorgonian coral (*Paragorgia arborea*)

B: Sponge (*Phakellia* sp.)

C: Encrusting sponges (Porifera)