APPENDIX A

ACRONYMS, GLOSSARY AND REFERENCES

Acronyms

%	Percent
<	Smaller than
>	Larger than
°	Degrees
°C	Degrees Celsius
µPa^{2}s	(micropascal squared) per second
2D	Two dimensional
3D	Three dimensional
AASM	Airgun Array Source Model
APNN	Greenland Home Rule Department of Fisheries, Hunting and Agriculture
BIO	Bedford Institute of Oceanography
BMP	Bureau of Minerals and Petroleum
BOD	Biological Oxygen Demand
CEA	Cumulative Effects Assessment
CH_4	Methane
cm	Centimetre
cm/s	Centimetres per second
CO	Carbon moxoide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CR	Critically Endangered
cSEL	Cumulative Sound Exposure Level
dB	Decibels
dB re 1 uPa	Decibels relative to one micropascal
DCE	Danish Centre for Environment and Energy
DD	Data Deficient
DKK	Danish krone
DMI	Danish Meteorological Institute
E	East
e.g.	For example
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment

EN	Endangered
EPP	Envorinmental Protection Plan
ERP	Emergency Response Plan
et al.	And others
EU	European Union
FLO	Fishery Liaison Officers
GFLC	Greenland Fisheries License Control
GINR	Greenland Institute of Natural Resources
GMT	Greenwich Mean Time
GPS	Global Position System
HSE	Health, Safety, and Environment
HSSE	Health, Safety, Security and Environment
Hz	Hertz
IBA	Important Bird Area
IBCAO	International Bathymetric Chart of the Arctic Ocean
ICES	International Council of the Exploration of the Sea
IFC	International Finance Cooperation
IMO	International Maritime Organization
in^3	Cubic inches
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission
JNCC	Joint Nature Conservation Committee
KHz	KiloHertz
km	Kilometres
km^2	Square kilometres
km^3	Cubic kilometres
KNAPK	Greenland Fishery and Hunters Association
KS/s	kilo samples per second
LC	Least Concern
LSA	Local Study Area
m	Metres
m/s	Metres per second

m^3	Cubic metres
m^3/s	Cubic metres per second
m^3/yr	Cubic metres per year
MDF	Marine Diesel Fuel
mm	Millimetre
mm/yr	Millimetres per year
MMSO	Marine Mammal and Seabird Observation
MOKN	Maersk Oil Kalaallit Nunaat A/S and Nunaoil A/S (referred to collectively)
MSDS	Material Safety Data Sheet
MSF	Mid-Shelf Front
Mt	Million tones
N	North
n/a	Not applicable
N_2O	Nitrous oxide
NAFO	North Atlantic Fisheries Organization
NAMMCO	North Atlantic Marine Mammal Commission
NAO	North Atlantic Oscillation
NEAFC	North East Atlantic Fisheries Commission
NERI	National Environmental Research Institute (Denmark)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NORSOK	Norsk Sokkels Konkuranseposisjon (competitive standing of the Norwegian Offshore Sector)
NOx	Nitrogen oxides
NT	Near Threatened
OGP	International Association of Oil and Gas Producers
OPV	Offshore patrol vessel
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic
PAM	Passive Acoustic Monitoring
PM	Particulate matter
PPE	Personal Protective Equipment
PSI	Pounds per square inch
psu	Practical salinity units
PTS	Permanent Threshold Shift

RAL	Royal Arctic Line
RMS	Root Mean Square Pressure
rms	Root mean square
rms SPL	Root-mean-square sound pressure level
RSA	Regional Study Area
S	South
SBP	Sub-bottom profiling
SEL	Sound Exposure Level
SL	Source level
SOx	Sulpur oxides
sp.	Species
SPL	Sound Pressure Level
spp.	Multiple species
Sv	Sverdrup
TAC	Total Allowable Catch
the Project	MONK's proposed 2012 exploration program.
tonnes/L	Tonnes per litre
TTS	Temporary Threshold Shift
TWT	Two-way time
USBL	Ultrashort Baseline
VEC	Valued Ecosystem Component
VMS	Vessel Monitoring System
VOC	Volatile Organic Compound
VSP	Vertical seismic profiling
VU	Vulnerable
W	West
WGCF	West Greenland Current Front
µPa	Micropascal

Glossary

Ablates	When ice cover melts.
Abyssal plain	Topographic feature representing the relatively flat (plain) area of the bottom of oceans floors.
Acoustics	The scientific study of sound, especially of its generation, transmission, and reception.
Advection (inflow)	Transport mechanism induced by the flow of water.
Advection fog	Occurs when moist air passes over a cool surface by advection (wind).
Alkanes	Are also known as paraffin's or saturated hydrocarbon. They are chemical compounds that consist only of hydrogen and carbon atoms (single bonds). They are not very reactive and have little biological activity.
Amphidromic point	A geographical location where the tidal amplitude is zero.
Ancillary	Providing necessary support to the primary activities or operations.
Anthropogenic noise	Noise created by people or caused by human activity.
Aquatic alien species	Aquatic species that are non-native or non-indigenous to the receiving environment.
Aromatic hydrocarbons	A hydrocarbon with alternating double and single bonds between carbon atoms.
Atmospheric fronts	Area delimiting distinct atmospheric masses (cold and warm usually).
Attenuate	Act of reducing the amplitude of a signal (acoustic, electric, etc.).
Average draft	Mean vertical distance between the waterline and the bottom of the hull (keel) of a ship.
Bathymetry	Measurement of the depth of bodies of water
Beaufort Scale	An empirical measure that relates wind speed to observed conditions at sea or on land
Beaufort Scale	An empirical measure that relates wind speed to observed conditions at sea or on land
Benthic ecology	The study of populations and communities of marine and estuarine animals that live on the seafloor or in the seafloor sediments
Bergy bit	A large chunk of ice broken off an iceberg (small iceberg)
Biological Oxygen Demand	The amount of dissolved oxygen needed by some organisms in water to break down organic material. The BOD value is most commonly expressed in milligrams of oxygen consumed per litre (5 days of incubation at 20 °C) and is often used as to determine the level of organic pollution of water.
Boundary layer transport	Transport (generally sediment) occurring within the thin layer of water column located just above the seafloor.
Bow	Front of a vessel
Box coring	Marine geological sampling tool for collecting soft sediments and benthos (animals on the seafloor or in the sediment) from the seafloor.
Brackish plumes	An inflow of low salinity water

Bunkering	Re-fuelling.
Calved	Act of an iceberg breaking off a continental glacial field
Cetacean	Member of group of aquatic marine mammals that includes the whales, dolphins, porpoises, and related forms.
Clay soils	Sediment consisting of one or more clay minerals with traces of metal oxides and organic matter. Geologic clay deposits are mostly composed of phyllosilicate minerals containing variable amounts of water trapped in the mineral structure.
Clear ice	Harder (and denser) type of rime ice that is transparent and homogeneous.
Constituent components	Particles or elements that serve as part of a whole component.
Continental shelf	Submerged extended perimeter of a land mass that is often characterised by a relatively flat and gently sloping surface lowering toward the slope and abyssal plain.
Continental slope	Steep underwater slope making the connection between the continental shelf and the abyssal plain.
Cross-frontal exchange	Exchange of water within the frontal zone (a zone between distinct water masses).
Cyclones	Atmospheric feature characterized by inward spiralling and anticlockwise rotation (in the Northern Hemisphere) of the air masses.
Cyclonic	Counter-clockwise motion (usually for fluids).
Dissipate	The loss of energy of a system over time.
Dissolution	The rate and extent to which oil dissolves in water. Rarely exceed 1 ppm and dissolution does not make a significant contribution to the removal of oil from the sea surface.
Distance sampling	A widely-used group of closely related methods for estimating the density and/or abundance of populations.
Diurnal	Occurring once a day (24 hours period).
Drifting ice	Ice that floats on the surface of the water in cold regions, also called pack-ice. Opposite to fast-ice, which is attached ("fastened") to a shore.
Eddy	Internal rotational motion within the fluid resulting from the dissipation of energy of a turbulent flow. Eddies commonly occur at frontal zones between water masses of different densities and velocities for instance.
Fast ice	Sea ice that has frozen along coasts ("fastened" to the coast) along the shoals, or to the sea floor over shallow parts of the continental shelf, and extends out from land into sea. Also called land-fast ice or shore-fast ice.
First-year ice	Sea-ice that has grown for not more than one winter, developing from young ice. Typically 30 cm or greater.
Fjords	A long, narrow inlet with steep sides or cliffs, created in a valley made by glacial activity.
Floe	Floating ice formed in a large sheet on the surface of a body of water.
Fortnightly modulation (spring and neap)	Modulation (increase or decrease) of the tidal signal occurring every 14 days, that is at spring and neap tides.
Frozen in	Ice that is not moving due to ice formation that constrains motion

Gale-force winds	Winds equal or over 13 m/s (in this context, Valeur et al, 1996 definition).
Geostrophic winds	The theoretical wind that would result from an exact balance between the Coriolis effect and the pressure gradient force
Gravity coring	A core sampler is dropped into the bottom of the ocean to obtain a vertical core sample of the seabed materials
Ground	Not moving due to contact with the ground or seafloor
Growler	Size category of an ice berg. Growlers and less than 1 metre high and less than 5 metres long.
Hindcast dataset	Data derived from the re-analysis of historical data and re-implementation of numerical models to derive long times series of parameters of interest (here: wind and wave).
Hummocking	Internal pressure within sea ice which results in haphazardly arranged mounds or hillocks
Hydrodynamic discontinuities	Frontal zones characterized by a steep change of fluid dynamics fundamental properties (from turbulent to stagnant regime for instance)
Hydrodynamic loading	Forces that result from water flowing against and around a structure such as a vessel
Hydrographic survey	The science of measurement and description of features which affect maritime navigation, marine construction, dredging, offshore oil exploration/drilling and related disciplines.
Hydrographic Vessel	A ship used to study depth levels and coastlines.
Ice bridge	A frozen natural structure formed over seas, bays, rivers or lake surfaces
Iceberg	A large piece of ice from freshwater that has broken off from a snow-formed glacier or ice shelf and is floating in open water
Iceberg volume fluxes	The total volume of icebergs moving through a specified area
Impulsive noise	A category of acoustic noise characterized by almost instantaneous sounds like clicks or pops, as opposed to continuous sources of noise generation.
Inter-annual	Over the span of several years.
Invasive species	Alien species that have an adverse affect on the habitats and bioregions they invade either economically, environmentally, and/or ecologically.
Isobath	Contour of equal depth.
Isobath polygons	Polygons made from contours of equal depth.
Isopleth	line connecting points on a graph or map that have equal or corresponding values.
Isopycnals	Contours of equal density
Keels	The underside portion of a floating object, such as a vessel, iceberg or sea ice
Landfast ice	Sea ice that has frozen along coastal shoals, or to the sea floor over shallow parts of the continental shelf, and extends out from land into sea.
Latent heat process	The heat required to convert a solid into a liquid or vapor, or a liquid into a vapor, without change of temperature.

Leads	Stretches of open water within fields of sea ice. Leads are caused by movements of the ice due to wind, or to currents in the underlying water, and may open and close again within a brief period; alternatively they may remain open more or less permanently
Level ice	Sea ice that is comparatively flat on its top and lower sides
Longlines	A deep-sea fishing line.
Macerated	Softening or breaking-up of food by soaking it in a liquid.
Marginal ice region	The area between the highly concentrated sea ice pack and open water areas.
Material Safety Data Sheets	Also known as Control of Substances Hazardous to Health Regulations **(**COSHH) data sheet in the United Kingdom. Forms with data regarding the properties of a particular substance. MSDS are important component of product stewardship and workplace safety, and they are intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data.
Maximum draft	The vertical distance from the bottom of a floating object to the water level
Mean peak period (Tp):	Wave period demined using spectral distribution.
Mean sail height	The average height of the ice above the water level
Mean speed	Average speed of an object
Mean waterline	Average length of the waterline around a floating object
Mean width	Average width of an object
Median iceberg mass	The middle value of an ordered set of the mass values of many icebergs.
Medium ice	Ice that is 0.7 to 1.2 m thick.
Middle Ice Pack	The area of highly concentrated sea ice that remains in central Baffin Bay in summer after sea ice has cleared to the east and the north
Middle Ice Pack or West Ice	Early summer clearing of sea ice leaves a pattern of remnant sea ice in central Baffin Bay only.
Mid-Shelf Front	Frontal zone located about mid-way on the continental shelf.
Mooring	Instrumentation deployed in the sea and anchored to measure specific parameters (physical and/or biological)
Mysticete	A suborder of whales which have which have plates of whalebone in their mouth instead of teeth.
New ice	Ice that is up to 10 cm thick.
Nomograms	Graphical tool used predict or calculate a function involving multiple parameters.
North Water polynya	A very large area of open water and/or thin ice which occurs in winter and spring in Nares Strait between Canada and Greenland which extends into Northern Baffin Bay
Oceanic fronts	Large horizontal gradients in water properties (such as temperature and salinity for instance).

Odontocete	A suborder of whales which have teeth, contrasted with the baleen whales which have plates of whalebone in their mouth.
Oil plume	Column of oil moving through water.
Passive Acoustic Monitoring (PAM)	Observation of sound and noise using equipment which solely receives ambient or externally generated sound waves, as opposed to active acoustic methods which transmit sound waves and observe the reflected pattern.
Permanent Threshold Shift	The deterioration of hearing due to prolonged or repeated exposure sounds which accelerate the normal process of gradual hearing loss and the permanent hearing damage due to brief exposure to extremely high sound levels.
Pinniped	Member of group of aquatic carnivorous mammals including the seals and walruses.
Piston coring	A long, heavy tube plunged into the seafloor to extract samples of mud sediment
Polar vortex	Persistent (steady) large-scale cyclone located near the pole.
Port	The left hand side of a vessel.
Pour point	Lowest temperature at which a liquid substance becomes semi-solid and loses its flow characteristics.
Propagation	the process by which a disturbance, such as the motion of sound waves, is transmitted through a medium such as air or water.
Propagation Loss	The reduction of sound power with increasing distance from source.
Quasi-decadal	That occurs on a cycle of about 10 years.
Radiation fog	Occurs by the cooling of the surface after sunset in calm conditions and clear sky.
Rafting	The process by which two pieces of level ice ride-up over one another
Refraction	Bending of the sound propagation direction.
Remoulding	When silt or clay soils are disturbed, they generally lose some of their strength, and may absorb water, a process known as remoulding
Reticle Binoculars	Binoculars with a net of fine lines or fibers (crosshairs) in the eyepiece.
Ridging	The process by which individual pieces of sea ice pile up in large deformed ice features
Rime ice	Milky and crystalline ice that often forms when water droplets in fog freeze to the surfaces of objects.
Scouring (or gouging)	Long, narrow ditches in a seabed, created by the collision of the underside of sea ice or icebergs
Sediment	Naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of fluids such as wind, water, or ice, and/or by the force of gravity acting on the particle itself.
Sedimentation	When oily particles make their way to the sea bed where they interact with bottom sediments.
Seismic Survey	A survey method that uses strong low-frequency sound waves to map subterranean features.
Semi-diurnal	Occurring twice a day (12 hours period).

Sensible heat process	When an object is heated, its temperature rises as heat is added; the increase in heat is called sensible heat
Shear zone	Linear polynya-type feature.
Sills: (in this context: bathymetric feature)	Shallow area usually separating a channel, strait or Fjord to deeper basins or external body of water.
Solar radiation	Input of energy from the sun to the surface of the earth.
Sound channel axis	The depth of the minimum sound speed in the water column
Sound Exposure Level	A measure of total sound energy experienced as opposed to magnitude of a sound pressure wave. Sound exposure level can describe the sound level experienced during a single sound pulse or the summed total energy experienced from multiple sound pulses.
Sound Pressure Level	A decibel measure of sound pressure magnitude. Can be measured as the peak or maximum instantaneous sound pressure attained within a defined interval.
Sound propagation	The process by which sound pressure waves are transmitted through a medium such as water
Specific gravity	Ratio of the density (mass of a unit volume) of a substance (oil) to the density (mass of the same unit volume) of a reference substance (water).
Starboard	The right hand side of a vessel.
Stratigraphic drilling	A geologically directed drilling effort to obtain information pertaining to a specific geological condition that might lead toward the discovery of an accumulation of oil and gas
Sub-Bottom Profiling	A method for determining the nature and stratigraphy of sub-surface seabed materials, often using acoustic or sound generating equipment.
Surface sound channel	The region where a low velocity condition develops and becomes stable in the mixed layer.
Sverdrup	Sv, equal to 10^6 cubic metres per second.
Temporary Threshold Shift	Temporary increases in threshold occurring after exposure to high noise levels, which can last from minutes to hours.
Thermodynamics	The branch of physics that deals with the relationships and conversions between heat and other forms of energy
Thin ice	Ice that is 30 to 70 cm thick.
Tidal amplitude	Represents half the tidal wave range. That is the height between still (or mean) water level and high (or low) water level (assuming sinusoidal shape of the wave).
Topographic control	Control of the flow by prominent topographic features such banks or canyons.
Transient	An event of relatively short duration having an obvious start and end.
Transmission loss	The reduction in sound level that results from the spreading of sound away from an acoustic source, subject to the influence of the surrounding environment. Also referred to as propagation loss.

Upwelling	Upward motion created by the divergence of currents and bringing deeper water to the surface. Along the coast, upwelling is often created (forced) by the combination of the wind stress and the Coriolis force displacing surface water seaward.
Vertical salinity Stratification	Vertical distribution of salinity demonstrating steep gradients.
Viscosity	A measure of the resistance of a fluid which is being deformed by either shear or tensile stress (the thickness of a fluid).
Wake	The waves that spreads behind a vessel or other moving boday
Young ice	Ice that is 10 to 30 cm thick.

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